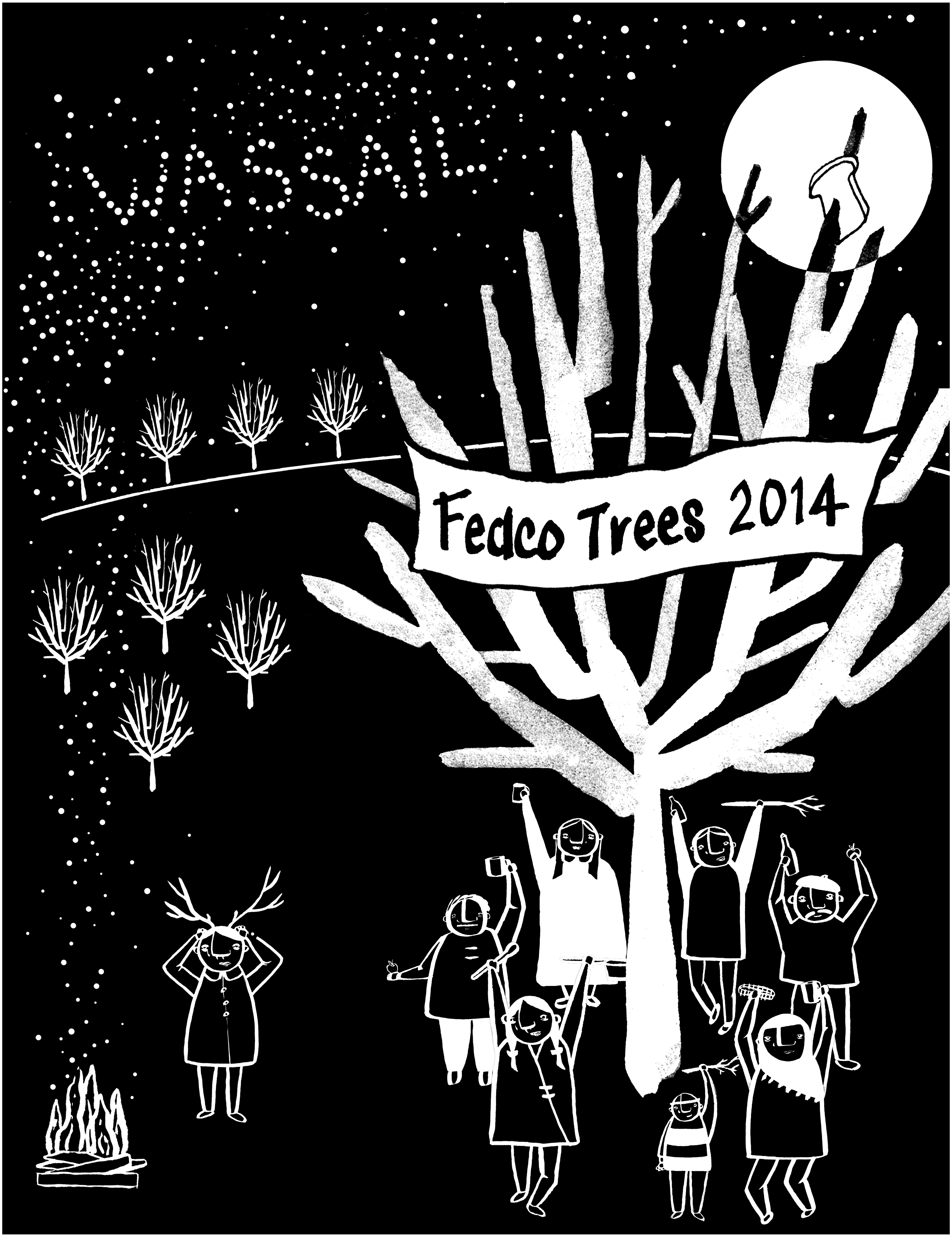

WASSAIL
Fedco Trees 2014

FEDCO TREES 2014

Wassail!

Welcome to Fedco Trees' 30th annual order. Our goal is to provide the hardiest and healthiest plants available for cold climates, while supporting small-scale, local agriculture and a fair, cooperative and responsible workplace. Our no-frills operation and volume discounts help keep plants affordable. Consider ordering in a group with co-workers, friends or neighbors to further minimize your costs.

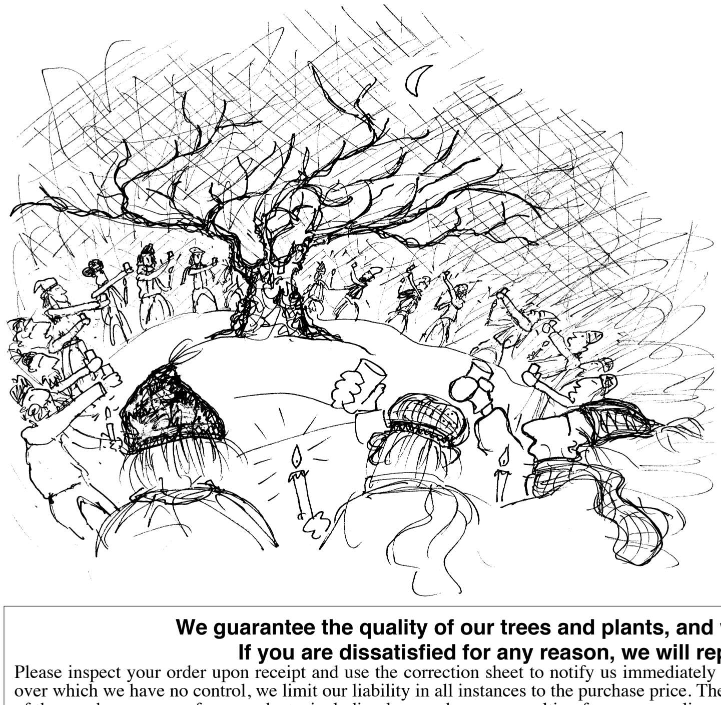
This year's cover is about the close partnership between plants and people, in particular trees and people. We call that partnership Agriculture. It's the ultimate collaboration. When done well, not only do both people and plants thrive, the whole earth thrives.

For thousands of years, we've been celebrating that close partnership during the darkest time of the year. Traditionally held around the old twelfth night after Christmas, in England it was called Wassail. We know the word (wæs hæil) dates back to middle English. It's probably much older. It means something like 'be in good health.' When an old friend I hadn't seen in several years stopped by, he said "you look hale and hearty." That was the 'hail' part of 'wass-hail.' When we toast one another, we still often say "good health to you!" That's wassail.

The wassail celebration is about getting together to express joy and thanks in having made it through another year, to honor each other and to honor the plants—particularly the apple trees—that sustain us. We exhort the trees to fend off disease and insects and drought and flood and whatever else comes their way. We express our excitement and anticipation to get back into that age-old partnership again, come spring.

We still do our own version of the wassail celebration every winter, on a Saturday night about the middle of January. We gather and drink cider around a bonfire. We "toast" our oldest apple tree by literally hanging a piece of toast on one of the branches. We pour cider on the roots. We sing the old wassail songs and chant to the tree.

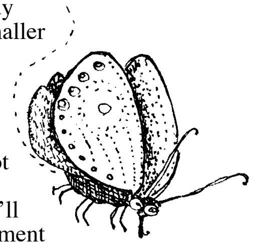
Someone dons a pair of deer antlers and the rest of us bang on pots and pans to scare the beast away. No deer in the orchard this summer, please. Or codling moths, or apple maggot flies, or plum curculios! After the singing and the whooping and the banging subsides and the deer has scampered away, we all adjourn to the house. The coats and hats and boots pile up in the entryway and we all eat and sing. If all goes well, we'll be rewarded with a bountiful crop in the fall. As the old song goes, "Hats full, caps full, bushel bags full!"



What's new in this year's catalog? We have a new Heritage Apple Collection and a crabapple collection we've grafted from unusual specimens featured at the Arnold Arboretum. We're exploring topics on hedgerow planting, the differences between seedlings and cultivars and their respective benefits, and navigating pollination terminology. Check out our updated sidebars on Cider Apples, the Functional Orchard and Supporting Pollinators. As usual we list plants we have never offered before as well as some returning after long absences. Enjoy the catalog!

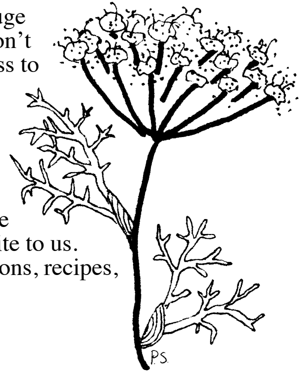
Please note our discount structure for large orders, our discount deadline, and the "Small & Light" shipping option for those who desire only items that are less expensive to ship than our giant boxes.

We do special orders. If you wish to buy large quantities of any item, larger or smaller plants than we are listing, rooted cuttings, or unusual items we're not listing, please write with particulars.



All of our trees are unconditionally guaranteed. If your tree or shrub does not grow to your satisfaction during the first growing season, please let us know! We'll send a refund or you can order a replacement the following year. We don't have a huge staff so if we don't respond quickly, don't hesitate to remind us; we are in business to serve you.

Please share your experiences growing plants with us. Many of our selections originated from your suggestions. If you know of something growing near you we should be offering, or if you are interested in growing for us, please write to us. We welcome your comments, suggestions, recipes, anecdotes and ideas.



John Bunker & Susan Kiralis

Our website: **www.fedcoseeds.com**
then click on Fedco Trees.

- **You may order online.**
- **Check product availability online.**

We also post color photos of most of our trees, shrubs and perennials and a wide range of information.

Ordering instructions p. 3
Order Forms center
Complete index p. 71

contact us:
by email at questions@fedcoseeds.com
or phone 207-426-9900

Find photos and updates on our **Fedco Trees Facebook** page.

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cover by Erin Staub

We guarantee the quality of our trees and plants, and warrant that all items we offer are fully satisfactory.
If you are dissatisfied for any reason, we will replace the item or refund the purchase price.

Please inspect your order upon receipt and use the correction sheet to notify us immediately of any problems. Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability. Claims for any defects in Fedco's products should be presented to Fedco as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

Ordering Information —

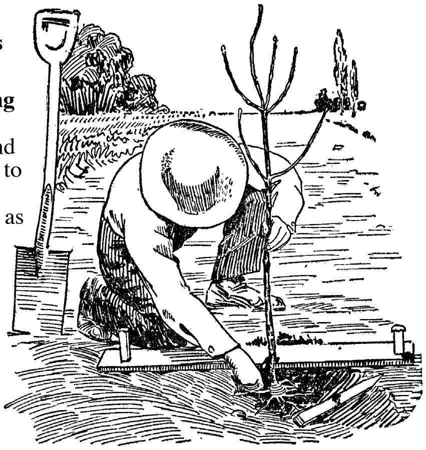
Order items from this catalog online or on a Trees 2014 **order form**, in the center of the catalog; you may submit as many pages as you need, either photocopies, forms downloaded from our website or printouts mimicking our format. To encourage you to participate in a group order and to order early, we give discounts.

Payment: we accept check, money order, Visa, MasterCard, AmEx and Discover; payment must accompany all orders. We request that mailed orders under $25 pay by check or MO. Make your check out to Fedco. We will charge your card when we receive your order. We will bill or refund you for any adjustments as each order is completed.

- **Online**: go to **fedcoseeds.com** and click on Fedco Trees.
- **Mail** your order: **Fedco Trees, PO Box 520, Waterville, ME 04903-0520.** Keep a copy of your order for your records. To confirm receipt of your order, enclose a stamped self-addressed postcard.
- **We do not take fax or phone orders.**

Group orders: By mail, send us at one time all your members' order forms with one payment and receive the individually packaged orders at one address. The group total earns the discount, if any. Use an additional order form for a group cover sheet. Keep a copy of each group member's order.

We also take group orders online. Group coordinators can click on Group Ordering on the Fedco Trees page for instructions.



Maine 5% sales tax: for **Maine residents** and **pickups** only**.**

We charge **$10 for handling each time you adjust your order**. Additions, deletions and cancellations are costly for us to process. You are welcome to place as many separate orders as you wish.

We will offer surplus for sale at the Tree Sale. Sometimes we have stock left over after the Tree Sale, but never after May 15th, when we shut down completely and go home to plant.

Our Planting Guide
is incorporated into the catalog. **Save your catalog** for planting and cultural instructions. The catalog is also available online. We will not send planting guides with orders unless you request them.

Our Variety Descriptions –

All trees and plants are bare-rooted (except where noted), and even a large order can fit into a station wagon. All fruit and nut trees are well-rooted, 1/4-7/8" in diameter.

Fruit trees are grafted onto the hardiest standard-sized rootstocks available, except for a few apples and pears on dwarfing (size-controlling) rootstock. Standard trees are stronger rooted, hardier, and longer lived than dwarf or semi-dwarf trees. You can keep a tree on standard rootstock small by keeping it pruned.

For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.

The **zone hardiness rating** will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). Apple descriptions have minimum *and* maximum zones because apples typically need cold climates to produce the best fruit. All other plants list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.

Please note **pollination requirements** for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a plant of a second variety.

We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

John Bunker, Lauren Cormier and Jen Ries write the tree and shrub descriptions; Laura Childs writes bulb and perennial descriptions.

Discounts & Deadlines —

Discount deadline is **Friday, January 17, 2014.** Sorry, no volume discounts on later orders. Discounts apply only to orders either picked up or shipped to one address.

over $200	10% discount
over $400	15% discount
over $1000	20% discount

We fill all orders on a first-come first-served basis.

Final order deadline is **March 7, 2014.**

Shipping —

We ship most orders **via UPS beginning around March 27**, continuing for about 10 days, according to planting zone. Our last regular shipping date is around April 10. We will have a special late shipping date around April 30. We do not ship at other times.

We strive to make our **shipping charges** fair, and it is a challenge. Since most packages we send with trees and shrubs are subject to expensive charges for oversized boxes and heavy weights, we have a category of small and light items that cost less to ship.

Regular UPS shipping charges: Shipping is a percentage of your adjusted total with the following minimums:

area	minimum	rate
Continental US	$20	14% over $143

Shipments to Alaska go via USPS Priority Mail:

Alaska	$25	20% over $125

Please include a postal address. This rate also applies to anyone in the lower 48 who *requires* postal delivery.

Small & Light shipping: If you order **only** items with stock numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, horseradish, groundnut, books.

S&L to all states	$10	14% over $72

If you order **any** other items in addition to these, you **must** pay the regular shipping charges.

If you require a specific ship date during our regular shipping time, or late shipment around April 30, **we charge an additional $15** to cover our extra handling costs.

Pickup —

Pick up your order during our annual Tree Sale at our Hinckley Rd warehouse in Clinton, Maine. Friday and Saturday, April 25–26, are reserved for preorder customers. The second Friday and Saturday, May 2–3, though we are open to the public, orders are still available for pickup. **Sale hours are 9:00–3:00** each day. We will send you a pickup reminder and map in April.

Substitutions —

When dealing with live plants, we can never be certain that we can fill your order. Our default mode is to substitute a similar variety, if something becomes unavailable, as most people prefer a similar tree or plant to a refund. On the order form, if you indicate you don't want any substitutions, we'll send a refund.

If you order apples, please indicate whether you will accept the varieties on similar rootstocks.

VARIETY NAME
SEASON OF RIPENESS
AG. STATION TEST NUMBER
PARENTAGE

Governeur Sourapple Winter. ME10-9-48 (*Malus verbum* x *Sine praecognito)* U ME Blaine House Farm, 2010. Tends to spew fruit without warning. Proverbial rotten fruit that spoils the barrel. Leaves a bitter taste in one's mouth. Z4-6. **ME Grown.**

YEAR OF INTRODUCTION
GROWN BY FEDCO GROWERS COOP

039D Governeur on B9 rootstock, $27.25

ZONE RANGE

BOTANICAL NAME
CULTIVAR NAME
COMMON NAME

Sambucus musicus **'Marian McPartland' Elderberry**
6-12' x same. Slough, UK intro, 1918. Jazz up your yard with this sprightly English beauty. Spreading branches and large clusters of creamy-white flowers create a beautiful composition. Hosts many welcome guests. Z4. (1-3')

MATURE HEIGHT x WIDTH
SIZE OF PLANT STOCK

545A Marian McPartland Elderberry, $32.20

ITEM NUMBER
ZONE HARDINESS RATING
PRICE

When you get your order: Immediate Care

When your new trees and plants arrive, they are breaking dormancy and need to be planted as soon as possible. The longer they remain unplanted, the more stressed they become and the longer their recovery will take.

DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

Trees & Shrubs: Planting Within 48 Hours

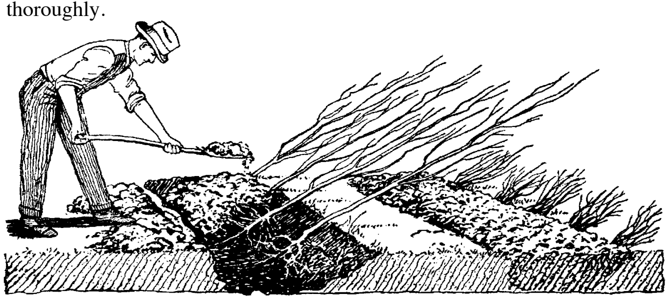
Leave the plastic wrapping around the root ball. Add some water to remoisten the packing material and store your trees/plants in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

Trees & Shrubs: If You Cannot Plant Within 48 Hours

You may keep plants for a week or two by following one of two temporary measures and continuing to water trees as they need it.

1) Remove the plastic wrap around the root ball. Store plants in a cool shaded place. Wrap the roots in wet shredded newspaper or sawdust, packing firmly to eliminate air pockets. Water thoroughly.

2) “Heel in” your plants. Dig a trench or turn back an appropriate amount of earth and bury the roots; tamp firmly to remove air pockets. Water thoroughly.



Asparagus

Open up asparagus roots and store dry and uncovered in a cool shaded place.

Strawberries

Refrigerate strawberry plants until you are ready to plant them.

Perennials

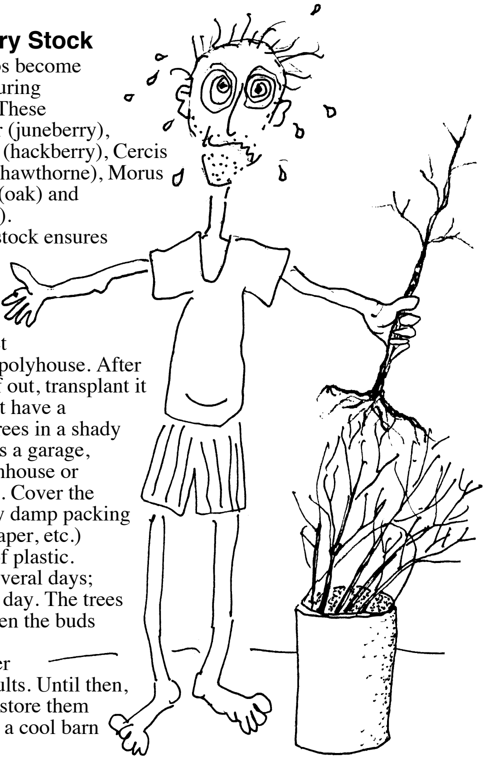
Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. If they are slightly dry, add a little water, or, if they are going to be potted up soon, soak the roots. Generally, a little surface mold is harmless and will not affect the plant’s future performance. Pot up crowns and roots; **do not plant directly outdoors**. If you cannot pot the crowns up immediately, store them in a cool (35–40°) location for a short time. See page 70 for details.

Sweating Nursery Stock

Some trees and shrubs become extremely dormant during refrigerated storage. These include: Amelanchier (juneberry), Betula (birch), Celtis (hackberry), Cercis (redbud), Crataegus (hawthorne), Morus (mulberry), Quercus (oak) and Potentilla (cinquefoil).

Sweating nursery stock ensures breaking of dormancy. The easiest way to force any tree to break bud is to pot it and set it in a greenhouse or polyhouse. After the tree begins to leaf out, transplant it outdoors. If you don’t have a greenhouse, lay the trees in a shady place, 45–70°, such as a garage, basement, barn, greenhouse or outdoors in the shade. Cover the whole plant with very damp packing material (hay, newspaper, etc.) followed by a sheet of plastic. Sweating will take several days; check the buds every day. The trees are ready to plant when the buds begin to swell.

Warm May weather will give the best results. Until then, heel your trees in, or store them with roots covered in a cool barn or garage.



TREE PLANTING AND CARE

Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage and full sun. A gentle slope and six to eight hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid “frost pockets.”

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctuating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, towards the lower end for apples, the higher end for peaches, and in the middle for others. Fruit species have optimal space requirements. See chart below.

Do not plant trees where power lines will interfere with them.

Fall Preparation or Spring Initial Feeding for Fruit Trees

If you’re interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic and moderate to low in calcium and phosphorus. You can apply this mix as a mulch to your newly planted tree in the spring. To order any of these products, refer to the Organic Growers Supply section of our Seed catalog or website.

Deluxe Method

Without digging the hole, cover an area 4–6' in diameter with:
5 lbs gypsum or Hi-Cal lime
5 lbs colloidal phosphate (short-term calcium and phosphorus)
5 lbs azomite (long-term minerals and trace minerals)
5 lbs granite meal or greensand (for improved soil texture)
2–3 lbs menafee humates (aids mineral and rock-powder breakdown)

For building high levels of humus, also add:
2 lbs alfalfa meal
2 lbs bone char or bone meal
2 lbs kelp meal
2 lbs blood meal
100 lbs compost (1/8 yard)
BioDynamic preps (optional)

Cover with a 3–4" mulch of lawn clippings, leaves or “brush” chips, which will smother the sod, conserve moisture, prevent leaching and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

Simpler Method

Forgo the soil amendments and simply pile 1–2 wheelbarrow loads of compost on each planting-hole site. If you live by the ocean, add a couple of wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

Feeding older fruit trees

Cover the surface of the ground out to the drip line with the same materials listed above. For larger trees (five years and older) increase the mineral amount to 10–15 lbs each. For ancient trees you can use up to 25 lbs of each mineral in a ring beneath the drip line. Mulch as described above.

Spacing of Fruit Trees, Nut Trees & Berries

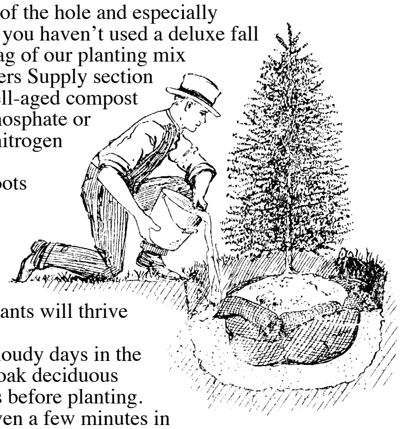
	between plants	**between rows**
Apples, Dwarf	7-8'	15'
Apples, Semi-dwarf	15'	15'
Apples, Standard	25–30'	25–30'
Asparagus	1–2'	4'
Blackberries	3–4'	6–12'
Blueberries, highbush	3–6'	8–10'
Blueberries, lowbush	1'	1'
Grapes	8'	8–10'
Hazel	4-6'	hedge
Kiwis	10'	10'
Nut trees - orchard	35'	35'
Nut trees - forest	20'	20'
Pears, Asian Pears	20'	20'
Raspberries	2'	6–12'
Stone Fruit	15–20'	15–20'
Strawberries	see instructions, p. 31	
Sweet Cherries	25'	25'

The basics of tree care outlined here are meant to get you going. Obviously, we can't tell you everything you need to know in a few pages. Some specific information, like location or soil preferences of particular plants, is in the item descriptions. A soil test is useful in determining the specific needs of your site. Reading, observation, trial and error, and talking with other growers and with extension agents can expand your knowledge of trees and shrubs.

Consult the Fedco Seeds catalog's book list for recommended reference books, or look for information online, including useful links at our website, fedcoseeds.com.

General Planting Directions for Trees and Shrubs

- Dig a large hole, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide.



- Loosen up the soil at the bottom of the hole and especially around the sides. For fruit trees, if you haven't used a deluxe fall preparation, you may add a 3-lb bag of our planting mix (available from the Organic Growers Supply section of the Fedco Seeds catalog), or well-aged compost and mineral fertilizers like rock phosphate or azomite, but *not* manure or other nitrogen sources.
- Replace the topsoil around the roots where it will do the most good.

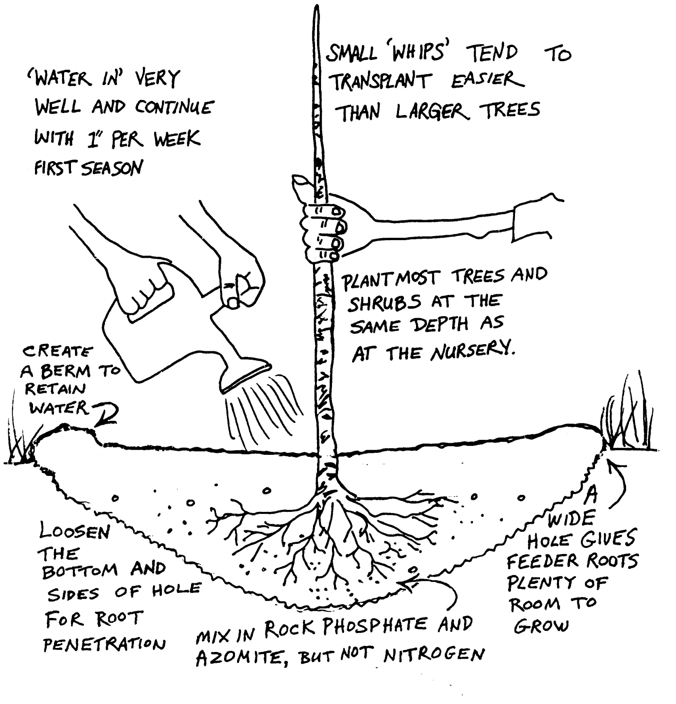
If you situate non-fruit trees according to their requirements, there is no need to add any supplements to your soil. This is the best way to ensure that your plants will thrive for many years.

For best results, plant on cool cloudy days in the early morning or late afternoon. Soak deciduous trees and shrubs for up to 24 hours before planting. Keep the roots from drying out; even a few minutes in the sun and breeze can kill a tree or shrub. Keep them in a bucket of water as you plant.

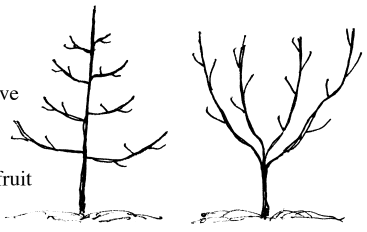
Generally, you should plant trees and shrubs at the same depth that they grew in the nursery. You should be able to see a "dirt line" or a change in bark color indicating nursery depth. Spread the roots out as you set the trees in the holes. Make a mound at the bottom of the hole over which to spread the roots. Give your trees plenty of water to "puddle in" as you plant. Wiggle the trunk as the water seeps in to ensure that the roots are settled in with no air pockets. Leave a berm around each tree so water will seep in and not run off. Keep them well watered throughout the first summer. They require the equivalent of 1–2" rain per week. A good soaking is effective; sprinkling is not.

Initial Pruning at Planting Time

Prune dead or injured branches and roots on all trees and shrubs. Further pruning of most trees is not necessary at planting time. Do not prune tops or prune or bend tap roots of nut trees. General information on pruning on page 48. Conifers (p. 48) and roses (p. 52) require special pruning.


'WATER IN' VERY WELL AND CONTINUE WITH 1" PER WEEK FIRST SEASON
SMALL 'WHIPS' TEND TO TRANSPLANT EASIER THAN LARGER TREES
PLANT MOST TREES AND SHRUBS AT THE SAME DEPTH AS AT THE NURSERY.
CREATE A BERM TO RETAIN WATER
A WIDE HOLE GIVES FEEDER ROOTS PLENTY OF ROOM TO GROW
LOOSEN THE BOTTOM AND SIDES OF HOLE FOR ROOT PENETRATION
MIX IN ROCK PHOSPHATE AND AZOMITE, BUT NOT NITROGEN

Pruning Fruit Trees



Avoid pruning young trees except to establish a basic shape, as it delays bearing. On apple and pear trees, leave the central leader alone and let it grow. It's okay to cut off extra trunks and large branches. Always remove suckers or root shoots from fruit trees. On peaches and plums, the trees may want to develop 2–4 leaders, or an open-vase shape. Always prune just above a good strong bud that faces a direction you'd like your plant to grow.

Pruning your new standard or semi-dwarf apple tree

Standard and semi-dwarf (Bud 118 and M111) apple trees will almost always benefit from pruning when first planted, to establish the long-term basic shape for the tree. Then refrain from pruning until the tree begins to fruit. Every time you prune potential leaf-bearing branches from a young tree, you set it back. The tree will grow quickly and fruit sooner if you allow it to photosynthesize. Once it begins to fruit, then you prune it annually.

Year one: If the tree is a branch-less "whip," cut the top back to a strong bud about 3–4' high. This will force branching at that level. This will eventually be your first tier of branches. The lowest scaffold (branch layer) should be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit, and the deer will have a field day. Also, it becomes difficult to mow, mulch, etc.

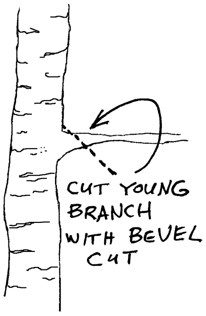
If the new tree arrives with branches, prune off all but 3–4 branches at the height you'd like for your first tier, also at about 3–4', or higher if you prefer.

Year two: Trim off root suckers or other odd branches that come up from around the base. Otherwise, leave the tree be and let it grow.

The next few years: If something looks really crowded, broken or dead, prune it. Otherwise, leave your tree alone and let it grow. If you don't fuss over it too much, you'll get fruit sooner!

Pruning and planting your new Bud 9 or other dwarf apple tree

Dwarf apple trees require different cultural and pruning methods. Dwarf trees are more sensitive to drought and soil deficiencies, so give them good soil and plenty of water. The goal of pruning is to create a strong central leader with weak laterals (side branches) that are replaced with other weak laterals as they begin to compete with the leader. The ideal dwarf tree looks like a staked tomato plant.



Year one:

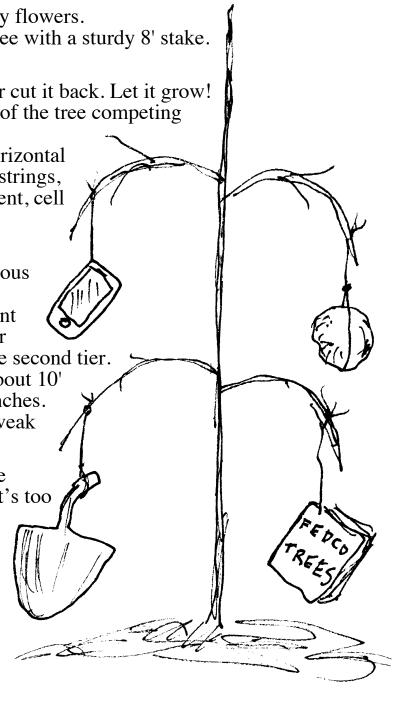
- Plant with the graft union 3" above soil level.
- Prune off all branches below 22".
- Trees with fewer than 3 feathers (small branches) should be headed at 32" and all feathers removed using a bevel cut. (See diagram.)
- Trees with 3 or more scaffolds (branches at least 10" long) should be headed 12" above the uppermost scaffold, and all scaffolds headed by removing one-third of their length.
- Rub off any competing leaders. You want only one leader.
- Remove any flowers.
- Stake the tree with a sturdy 8' stake.

Years two through six:

- DO NOT prune off the leader or cut it back. Let it grow!
- Pinch off any growth at the top of the tree competing with the leader.
- Train all laterals to be below horizontal by weighting them with elastics, strings, rocks, old pieces of farm equipment, cell phones, etc.

Beginning about the fourth year, remove some of the MOST vigorous side branches, allowing the less vigorous ones to remain. You want about four lower branches in your first tier and about the same in the second tier. The result will be a dwarf tree, about 10' tall with NO substantial side branches. The fruit will be borne on these weak laterals.

After seven years, you can cut the leader back to a strong lateral if it's too tall for your taste (or height). For an excellent article on this topic, go to acnursery.com, click on Fruit Tree Articles, then on The Vertical Axis Apple Planting System.



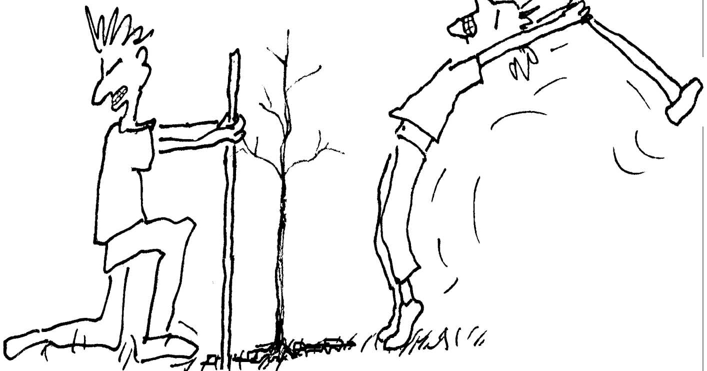
Once your fruit tree begins to bear you will want to prune annually. Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit. Sunlight also encourages fruit buds to form for next year's crop. A well-pruned tree will produce larger fruit and will tend toward more annual bearing. Good pruning discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree.

Most pruning should be done in late winter or early spring. We recommend a good-quality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth, clean cuts.

Any good book on growing fruit trees will have the information you need. Consult old and new books as well as orcharding articles and develop a system that works for you. Pruning is not difficult and will make a huge difference.

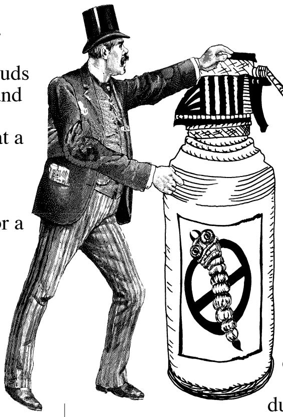
Mulch

Keep weeds and especially grass away from new trees and shrubs. Apply a 2–4" mulch of composted material, leaves, wood chips or hay out as far as the drip line. A ½–1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunk. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.



Staking

Newly planted standard-sized fruit trees and ornamental trees seldom need staking. Dwarf trees require staking. (See page 5.) Semi-dwarfs may require staking. If your tree is in a very windy site or develops a leaning habit, staking may help. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars, skidders and skateboards.



Beware the Apple Borer!

In many parts of central and northern New England the roundheaded appletree borer, *Saperda candida*, is **the number one enemy** of young **apple**, **crabapple** and **quince** trees. If you are growing young apple trees in these locations, you must protect your trees from this pest. Farther south and north the borer *may* not be a pest. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. The borer does not endanger other fruit trees or ornametals. Borer beetles thrive in shady moist warm environments. Keep grass back at least 6" from the tree base. The beetles lay eggs under the bark near the base of the tree. The developing larvae tunnel through the wood, eventually weakening the tree until it crumbles and falls over. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree, usually appearing in June or July. Locate the hole or soft spot in the trunk and insert a wire until you locate and kill the larvae. Cut away soft, spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside. Left unchecked, borers usually mean death for your trees.

Blasted Borers

Recently we've learned of a new method for ridding your young apple tree of borers: compressed air. When you discover a soft spot or hole in the tree, get yourself a can of compressed air (for cleaning computers). Put the long skinny tube nozzle up to the hole and give it a blast. Should do the trick.

After years of experimentation, I think that **painting is the best deterrent**. I've tried a number of recipes and this is my favorite. It's easy and requires no hard-to-find ingredients. Mix white *interior* latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Some exterior paint formulations contain ingredients that can harm the underlying phloem.) The consistency should be thick but still quite easy to paint, not glob on. Repaint periodically or each year as needed. This mix will help deter borers, and make for easy detection of any infestation you may have. Look for the frass! Using the paint method, you will still need to put some sort of screen or plastic rodent protector around the trunk during the winter months.

We are experimenting with a borer-protection formula using more benign ingredients. It doesn't last or adhere as well as the paint-joint compound mixture, but it appears to work fairly well.

2 qt quick lime
4 gal milk
1 gal boiled linseed oil

Mix well. Thicken as needed with clay or Surround (available in the Organic Growers Supply section of the Fedco Seeds catalog). Apply with a paint brush. Reapply as needed.

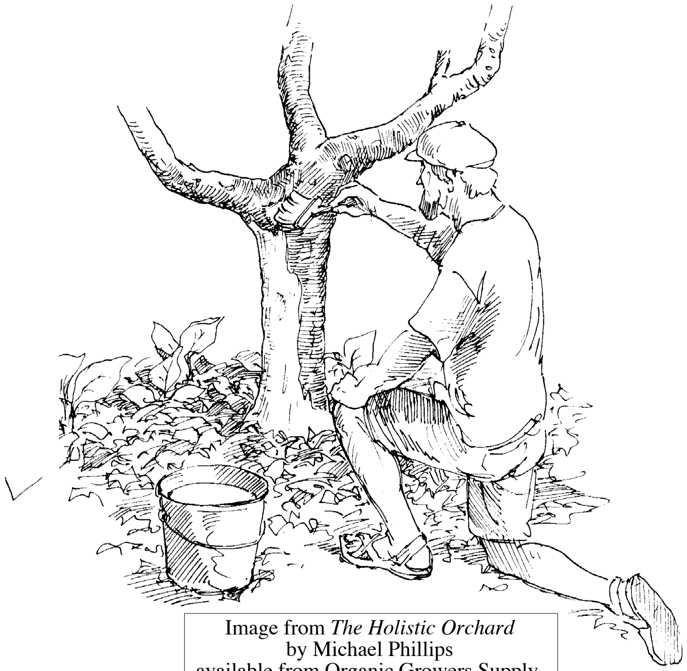
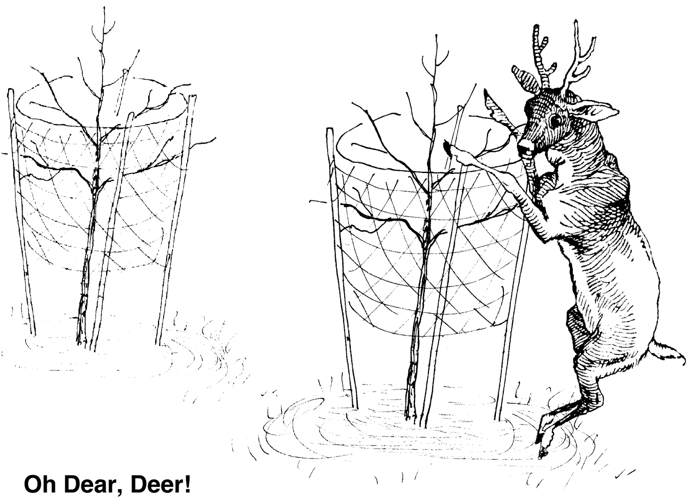


Image from *The Holistic Orchard*
by Michael Phillips
available from Organic Growers Supply.

Protecting Trees from Mice and Voles

Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. The danger is greatest in winter. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in chip mulches. A wrap of window screening or a plastic spiral tree guard will protect your tree from being girdled. If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, remove them from April to October, as they attract borers if left on the tree in the summer. You can leave plastic spiral tree guards on most other trees year round.

Voles Don't Like Narcissus! For many years we've been planting daffodils around the base of some of our apple trees. No particular reason; it just looks great. Come to find out that you can beautify your orchard and deter voles at the same time. Plant daffodils in a circle a foot or two away from the base. The tunneling voles don't like the bulbs and will veer away. We don't have the super-destructive pine voles in our orchard—whether or not the bulbs would deter them, we don't know. We'll be starting trials in Massachusetts this winter where the pine voles are a big problem.

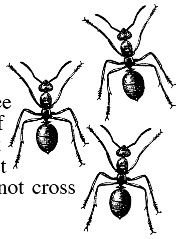


Oh Dear, Deer!

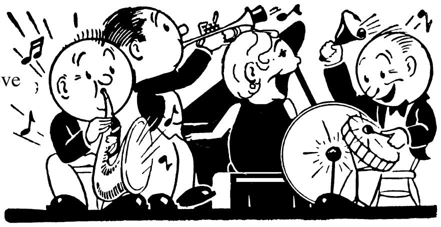
The best deer protection is a collie in the yard. If you don't have a dog or if your orchard is too far from the house, an 8' sheep fence will work. Some people have good luck with electric fences. Small protective fence enclosures can be made by circling your tree with a cylinder of chicken wire or other fencing.

Aphids and ants

Aphids can do a lot of damage to apple trees and they make the young leaves look gross. Whenever you see aphids you will see ants climbing up and down the tree feeding them. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground. Tape this "sleeve" to itself but not to the tree. Smear Tanglefoot on the paper. Ants will not cross the barrier and, without the ants, the aphids will die. In a day or two no more aphids.



Join Fedco as a Consumer Member-Owner!



When Vermont author Ben Hewitt visited our very funky Waterville rented office a few years back, he had some choice words for our surroundings, particularly my little room with its evidence of leaks and mold spots on the ceiling. Were he to come back now, he'd be surprised by our relative elegance. Last August, with the help of equity from our loyal members, we moved our office to our new Trees warehouse in Clinton. We all love our new digs, but they haven't changed the way we operate. We're still funky, hard-working, and a little chaotic, especially around catalog deadline times. It is possible that if Hewitt saw us now, he could overlook the superficialities and get our essence.

At $520k, the new Trees warehouse was the largest capital investment in our history. In only two years, our Trees division has returned to profitability, and anticipates a bright future with improved ease of operations and enhanced retail opportunities.

You can become a proud co-owner of this fine facility. Last year, our cadre of consumer-members grew more than 50% to 694 folks from 36 states, the District of Columbia and even two from Canada. We are now just 306 shy of our short-term goal of 1,000 members. Will you be one of those?

We are asking for $100 membership equity or, if this would prove a hardship, there is a $25 option, refundable at any time upon request. (If you pay by credit card we will charge your card $105 or $27 to cover the processing costs.) Please note that membership is by household (only one membership per household, please) or by farm or organization.

We can't claim we will change the world. But each tree we plant, each seed we plant, makes it a little greener, sequesters a little carbon, and together we can make the planet a little healthier.

–CR Lawn, President, Fedco Seeds Inc.

Why Join Fedco as a Member?

- Membership = ownership. Own a piece of Fedco!
- Your membership equity helps finance our new facility, reducing our interest expense.
- Enjoy benefits such as a 1% discount on all your orders, and member-only specials!
- Happy with our products, prices and catalogs? Help us to endure and thrive for many years to come! Keep that humor, those bad puns and occasional rants coming!
- Support our politics around food policy and seed issues? Help us fulfill our mission!

If you have any questions please email us at questions@fedcoseeds.com or call 207-426-9900.

Yes, I want to join Fedco as a consumer member-owner!

Enclosed is a check for my refundable membership deposit of $100.
Please make membership certificate out to:

Name____

Address______________________________________

City__________________________ St____ Zip______

Customer # (if you know it)________________

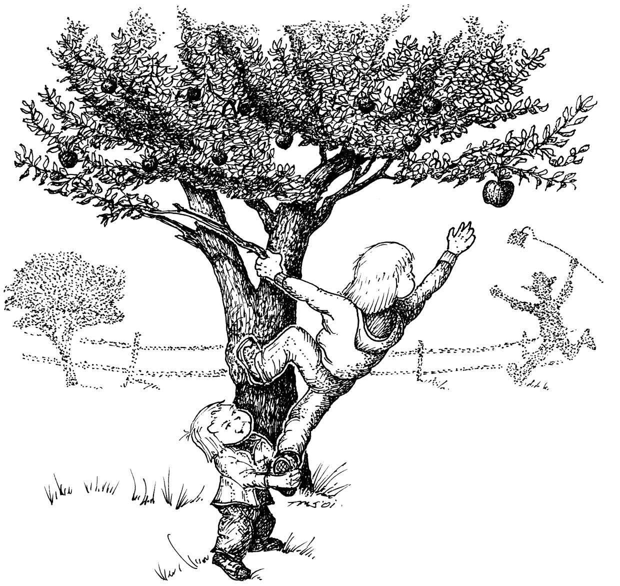
Email address__________________________________

PO Box 520, Waterville ME 04903

Aim for the right apple!

Best apples for:		Eating and Cooking							Cider		
Item Name	Season	All-Purpose	Fresh Eating	Storage	Cooking	Sauce	Pies	High Flavor	Unfermented Cider	Bittersharp/ Sharp	Bittersweet/ Sweet
101 Ashmead's Kernel	winter		🍎	🍎				🍎	🍎	🍎	
102 Baldwin	winter	🍎	🍎	🍎	🍎		🍎		🍎	🍎	
103 Black Oxford	winter	🍎	🍎	🍎	🍎	🍎	🍎		🍎	🍎	
104 Blue Pearmain	f-w*	🍎		🍎	🍎						
105 Bramtot	fall										🍎
106 Brigg's Auburn	f-w	🍎		🍎	🍎	🍎	🍎				
107 Brown's Apple	fall								🍎	🍎	
108 Calville Blanc d'Hiver	fall	🍎			🍎		🍎	🍎			
109 Canadian Strawberry	fall		🍎					🍎	🍎	🍎	
110 Charette	fall	🍎			🍎						
111 Chisel Jersey	fall										🍎
112 Coles Quince	summer				🍎	🍎	🍎				
113 Cortland	fall	🍎	🍎		🍎				🍎	🍎	
114 Cox's Orange Pippin	fall		🍎					🍎			
115 Dabinett	fall										🍎
116 Ellis Bitter	fall										🍎
117 Esopus Spitzenburg	winter	🍎	🍎	🍎	🍎			🍎	🍎	🍎	
118 Fameuse	fall		🍎		🍎	🍎		🍎			
119 Golden Russet	winter		🍎	🍎					🍎	🍎	
120 GoldRush	winter		🍎	🍎				🍎			
121 Gravenstein	summer	🍎	🍎		🍎		🍎				
122 Gray Pearmain	fall		🍎	🍎				🍎			
123 Grimes Golden	fall	🍎	🍎	🍎	🍎	🍎	🍎	🍎	🍎		
124 Harry Masters Jersey	fall										🍎
125 Honeycrisp	fall			🍎				🍎	🍎		
126 Judy	summer	🍎									
127 Keepsake	winter		🍎	🍎							
128 King of Tompkins County	fall	🍎	🍎		🍎						
129 Kingston Black	fall								🍎	🍎	
130 Liberty	fall	🍎	🍎		🍎				🍎	🍎	
132 Macoun	fall		🍎			🍎		🍎			
133 Major	fall										🍎
134 Marlboro	f-w*		🍎								
135 Michelin	fall										🍎
136 Nehou	fall										🍎
137 Northern Spy	winter	🍎	🍎	🍎	🍎	🍎	🍎		🍎	🍎	
138 Pewaukee	f-w*			🍎	🍎						
139 Porter's Perfection	fall									🍎	
140 Priscilla	fall		🍎						🍎		
141 Red Astrichan	summer				🍎	🍎	🍎				
142 Red Duchess	summer	🍎			🍎	🍎	🍎				
143 Redfield	fall					🍎	🍎			🍎	
144 Rhode Island Greening	winter	🍎		🍎	🍎		🍎				
145 Rolfe	fall		🍎								
146 Somerset Redstreak	fall										🍎
147 Spice Sweet	summer				🍎		🍎				
148 Stoke Red	fall									🍎	
149 Summer Sweeting	summer		🍎								🍎
150 Sweet Red	fall					🍎			🍎		🍎
151 Sweet Sixteen	fall	🍎	🍎	🍎	🍎	🍎		🍎	🍎		
152 Tolman Sweet	fall	🍎	🍎		🍎	🍎					🍎
153 Wealthy	fall	🍎	🍎		🍎	🍎	🍎				
154 Williams Pride	summer		🍎								
155 Winekist	summer		🍎			🍎				🍎	
156 Wolf River	fall				🍎	🍎					
157 Yarlington Mill	fall										🍎

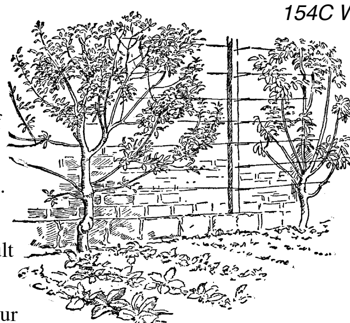
*f-w fall-winter



Apples *Malus spp*. Some definitions: **Summer apples** ripen in summer, are generally crisp only for a short period, do not store well, and are often best for cooking. **Fall apples** store longer and are useful for a wide variety of purposes. **Winter apples** ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage. **Dessert apples** are delicious eaten raw. **Cider apples** are especially suited to making fermented “hard” cider. Some cider apples are also good dessert fruit, but others are not. See the cider sidebar on page 11 and the apple chart on the facing page for more information. **Subacid** means tart! **Russet** or **russeting** is a skin texture (fairly common on apple varieties and on a few pears and potatoes) which looks and feels somewhat like suede. **Bloom** is a naturally occurring dust-like yeast film on the skin of some varieties of apples, plums and grapes.

Each variety has a **climate range** where it will thrive and produce its best fruit. At the end of each apple description we list a range of zones. For example, Z3-4 signifies that this apple will reach perfection in Zones 3 and 4 and that we don’t recommend it farther south even though it would be plenty hardy. Z4-6 means that this apple will reach perfection in Zones 4, 5 or 6. Although we have received reports from southern California that some of our rarest Maine apples are thriving in Zone 10A, we still suggest that you use this guide to select apples most appropriate to your area.

Choosing a variety: not every variety is right for you. **All-purpose** apples are just that—they’re good for a bunch of jobs. If I were planting just one tree, I’d start there. However if you’re a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don’t eat many apples but love pies, go for the pie apples. If you’re a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don’t have winter storage facilities. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop me an email: john@fedcoseeds.com. I’ll try to help!



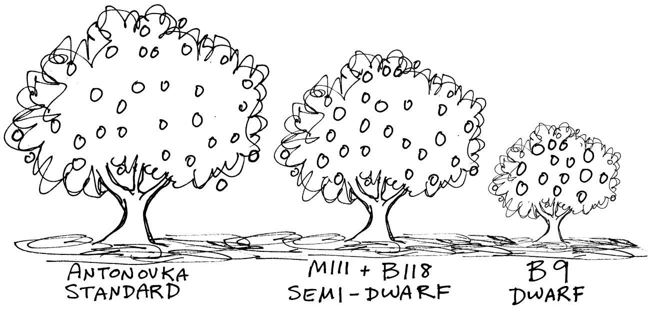
Rootstocks: This year we will once again offer most of our apples on standard Antonovka seedling rootstock. We also offer several varieties on dwarf and semi-dwarf rootstocks. See next column for more information about these “size-controlling” rootstocks and a list of available dwarfs and semi-dwarfs. Variety descriptions follow, beginning page 10.

Some people wonder why we have offered trees almost exclusively on standard (full-sized) rootstock over the years. Standard trees have deep, substantial—and therefore hardier—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren’s grandchildren. Standard trees will grow to be large, but you can keep them trimmed. Our largest trees are now about 30 years old, yet the tallest are well under 20'.

Although standard-sized apple trees may be planted as close as 10–15' apart, they were typically planted 30' apart in 19th-century orchards. We generally plant standard trees 20–25' apart with good results.

Apple trees are adaptable to a variety of soils and climates, though they prefer well-drained fertile soil. See pages 4–5 for information on soil preparation and planting. Varieties bearing annually are noted; others normally bear every other year. With diligent annual pruning and thinning, most apples will produce an annual crop, one heavy, the next light.

All apple trees require a second variety for pollination, but any apple or crabapple blooming at the same time, within a quarter mile, will probably do. (3-6' trees)



Dwarf and Semi-dwarf Apples

After an enthusiastic response from customers the past couple of years, we continue to offer an assortment of dwarf and semi-dwarf apples on three rootstocks: Bud 9, M111 and Bud 118. Each has great advantages for some growers, but beware! These rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards. Trees on Antonovka (standard rootstock) are extremely rugged, more tolerant of drought and poor soils, very long-lived, and more capable of thriving under a regime of benign neglect.

Bud 118 semi-dwarfing rootstock produces a tree that is about **85–90%** of standard size or even larger. Sometimes Bud 118 trees are called semi-standards or even standards. Plant about 20–25' apart. Considered to be more precocious than standards, and probably more productive. Very hardy, though not as hardy as Antonovka.

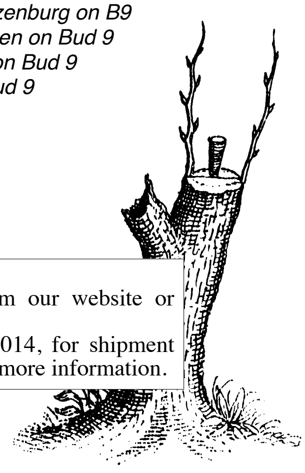
134B Marlboro on B118

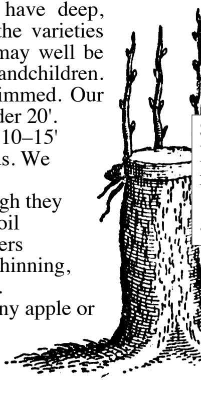
M111 semi-dwarfing rootstock produces a tree that is about **65–80%** of standard size. Sometimes M111 trees are called semi-standards. You can plant them closer together than standards, about 15–20' apart. M111 may not be more precocious than trees on standard. However it will likely be more productive. It has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. It is less well-rooted, not as long-lived, and not as cold-hardy as varieties grafted onto Antonovka.

103C Black Oxford on M111
109C Canadian Strawberry on M111
117C Esopus Spitzenburg on M111
119C Golden Russet on M111
120C GoldRush on M111
121C Gravenstein on M111
125C Honeycrisp on M111
130C Liberty on M111
137C Northern Spy on M111
140C Priscilla on M111
154C Williams Pride on M111

Bud 9 dwarf rootstock produces a tree that is very small. It is a true dwarf. This makes it extremely easy to spray, prune and pick. It requires way less space in your yard and will fruit at a very early age. You can plant trees 5–10' apart. On the other hand, it will not live nearly as long as those grafted onto Antonovka. It will be less well-rooted, more susceptible to drought and have more difficulty accessing soil nutrients. Trees should be staked for support. Hardy, but not nearly as hardy as Antonovka.

113D Cortland on B9
114D Cox's Orange Pippin on B9
117D Esopus Spitzenburg on B9
123D Grimes Golden on Bud 9
125D Honeycrisp on Bud 9
130D Liberty on Bud 9





Scionwood

Download the order form from our website or request it with a SASE.

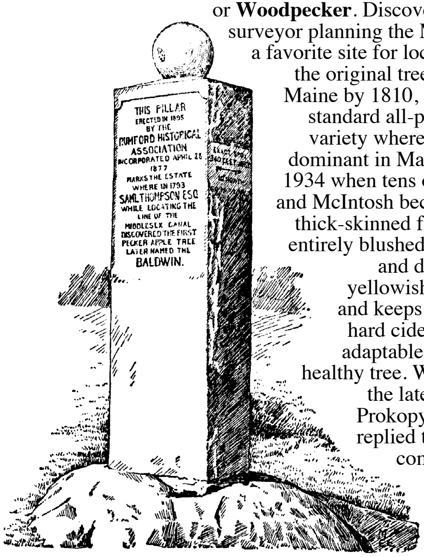
Order deadline is Feb 21, 2014, for shipment around March 19. See p. 20 for more information.

Rootstocks

We offer most apple varieties on standard-sized Antonovka rootstock. Where *A* follows the item number in the apple section, the variety is on standard rootstock. *B* indicates the variety is on Bud 118 rootstock, *C* indicates M111, and *D* is Bud 9. For more about rootstock, see pages 9 and 20.

Ashmead's Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like mild sweet apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. This apple could be served as dessert at the fanciest gathering of your most discerning friends. Beginning to show up here and there in commercial orchards. A good sharp addition to your hard cider. Medium-small oblate and lopsided orange-gold-green russet fruits. Ripens in October. Store until New Year's to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Somewhat scab resistant. Blooms midseason. Z4-7. **ME Grown.**

101A Ashmead's Kernel, $25.25



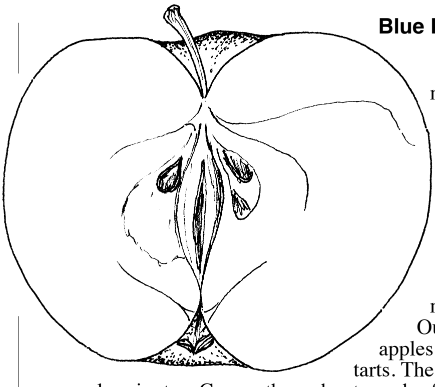
Baldwin Winter. Wilmington, MA, about 1740. Also called **Butters Apple** or **Woodpecker**. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. Scions from the original tree were grafted and growing in Maine by 1810, and by 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit. Light yellow skin almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and keeps till spring. Makes top-quality hard cider, blended or alone. Vigorous adaptable hugely productive long-lived healthy tree. When grower Dave Gott asked the late renowned entomologist Ron Prokopy his opinion of Baldwin, Ron replied that the apple is "not practical commercially due to biennialism but the *only* apple that is both disease and insect resistant." Massachusetts' most famous apple where it grows to perfection. Also extremely nice here in central Maine. Hardiest in well-drained upland and north slopes. Blooms early to midseason. Z4-6. **ME Grown.**

102A Baldwin, $25.25

Black Oxford Winter. Unknown parentage. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has been making a huge comeback in the last 20 years. Our best seller until Honeycrisp came along. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you'd discovered a huge plum tree. Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best eating late December to March. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms, early midseason. Z4-5. Both are **ME Grown.**

103A Black Oxford, $25.25
103C Black Oxford
on M111 rootstock, $27.25 (2-4')

ME Grown = grown in Maine by a member of the Fedco growers coop.



Blue Pearmain Fall-Winter. Thought to be Middlesex County, MA, 1700s. One of New England's most famous classic varieties. Incredibly beautiful medium to very large fruit is streaked and splashed with purplish-red, mottled with russet and covered with a distinct blue bloom. Fairly dry flesh, firm, dense and slightly crisp, sweet with a bit of a tart background flavor. Tasty eaten out of hand, although you might want to peel the thick skin. Our number one favorite for baked apples. It also makes excellent pies and tarts. The yellow applesauce cooks up in a couple minutes. Grown throughout much of Maine for well over 200 years, and still found here and there. Known by a number of synonyms including Blue Pear Maine, Maine Blue Pear, Blue Pearamay, Blue Pearamell, Blue Pomade and, one I heard recently, "Painbear Bluemain!" Keeps in the root cellar until midwinter. Blooms midseason. Z4-6. **ME Grown.**

104A Blue Pearmain, $25.25

Bramtot Fall. Bittersweet cider apple. Thought to be a seedling of the old variety Martin Fessar. M. Legrand introduction, Yvetot, France, 1872. Brought to England by the Woolhope Naturalists Field Club in 1884. Not for fresh eating but an excellent bittersweet for blending in hard cider. Juicy firm cream-colored quite bitter very astringent flesh has a very high sugar content. Steve Wood of Poverty Lane Orchards and Farnum Hill Ciders in Lebanon, NH, called it "a lovely little apple with nice juice, interesting, aggressively tannic." (SG 1.069, acidity 2.3g/L, tannin 3.5g/L) Small conic green partially russeted fruit with a dull orange blush. Not very well known and rarely included in the literature. Z4-6. **ME Grown.**

105A Bramtot cider apple, $25.25

Briggs Auburn Fall-Winter. Introduced by John C. Briggs of Auburn, ME, before 1850. Large round-oblate clear-yellow fruit with glowing greenish shading and a slight blush. All-purpose apple with a bright well-balanced flavor, including hints of banana and blackberry, and chewy skin. Superior fresh eating well into winter and top-notch cooking. Peel it and it's highly aromatic. Produces a thick creamy golden-yellow medium-sweet applesauce. No sugar necessary. Excellent in oatmeal. In a pie the slices lose their shape but the crust won't sink and pie doesn't get watery. Ripens in late fall and keeps all winter. One of my favorite winter apples. Our scionwood comes from an old orchard near Belfast. Z4-6. **ME Grown.**

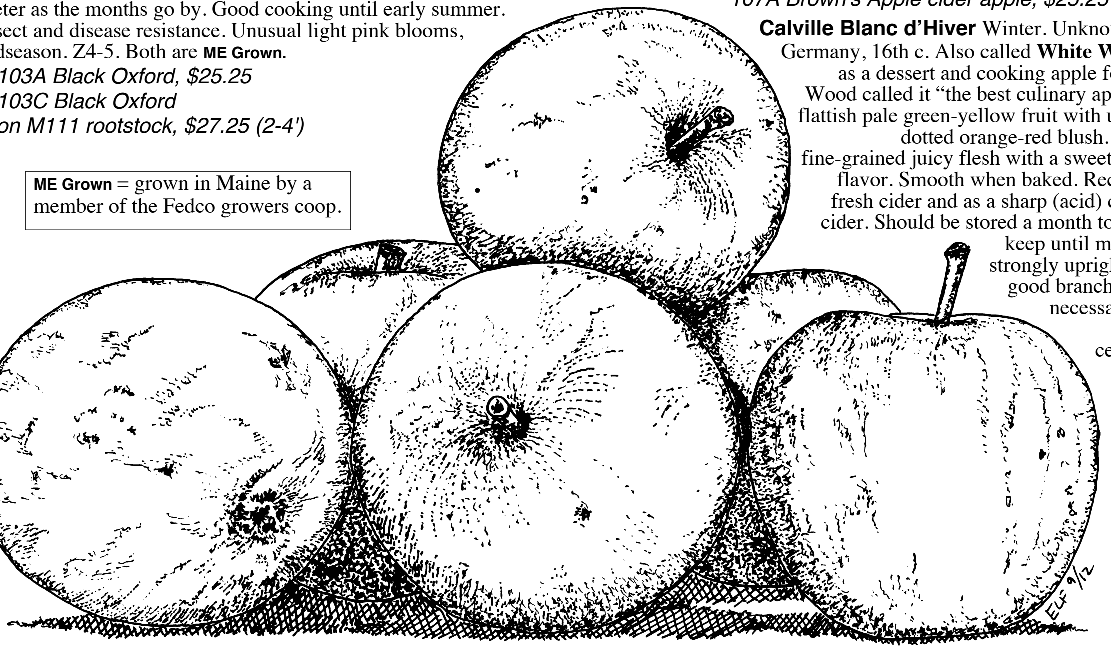
106A Briggs Auburn, $25.25

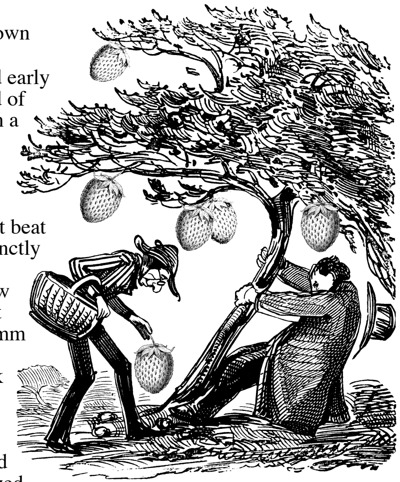
Brown's Apple Early Fall. Sharp cider apple. Thought to have originated at Hill's Nursery near Staverton in Devon, England, in the early 20th c. Medium-sized mostly dull-red blushed and striped oblate fruit. Typically planted in English cider orchards today for its high acidity (6.7 g/L). Low in tannin. We saw Brown's in nearly every orchard we visited during our 2011 cider trip to southwest England. Less common in the U.S. Most useful as an acid source for blended cider. Washington State University calls it "a grower-friendly tree, consistently productive, good resistance to scab, makes a very good single varietal cider with aromatic character." Would also make an acceptable dessert apple. Blooms midseason. Z4-7. **ME Grown.**

107A Brown's Apple cider apple, $25.25

Calville Blanc d'Hiver Winter. Unknown parentage. France or Germany, 16th c. Also called **White Winter Calville**. Famous as a dessert and cooking apple for over 400 years. Steve Wood called it "the best culinary apple in the world." Large flattish pale green-yellow fruit with uneven lumpy ribs and a dotted orange-red blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Smooth when baked. Recommended for vinegar, fresh cider and as a sharp (acid) component in fermented cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Head the tree if necessary to force it down. Not for coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4-7. **ME Grown.**

108A Calville Blanc d'Hiver, $25.25





Canadian Strawberry Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won't find a better apple. In 2002 we put Canadian Strawberry up against Cox's Orange Pippin and Chestnut crab at a Common Ground Fair taste test and it beat both of them. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich buttery-yellow skin overspread with a veil of vibrant red-orange. In 1996 the late Roy Slamm convinced me to visit and subsequently propagate nursery stock from the three ancient "Strawberry" trees on his South Solon farm, thus saving the apple from almost certain extinction. Now they are being spread throughout "Fedcoland." Medium-sized upright tree bears annually. Fruit does not keep well. Blooms midseason. Not to be confused with Chenango Strawberry. Z4-5. Both are **ME Grown**.

109A Canadian Strawberry, $25.25

109C Canadian Strawberry on M111 rootstock, $27.25

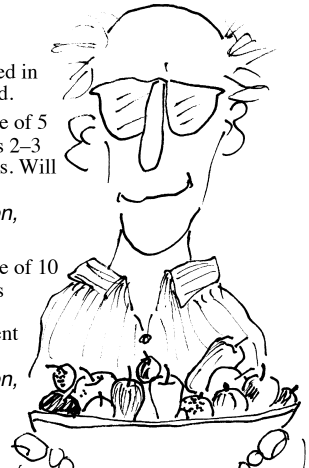
Charette Fall. Also called **The Donut Apple**. Unknown parentage. May have originated in Fort Kent, ME, although Aroostook fruit explorer Garfield King speculated that it came down from Quebec 200 years ago with French missionaries. The only known mature tree is a gigantic specimen on Charette Hill in Fort Kent. Remarkably large oblate fruit, mostly covered with stripes and splashes of pink and bright red. Surprisingly good fresh eating for such a large apple. (We prefer it to Wolf River!) Recommended for pies. Makes a light-pink spicy sauce. No need to add sugar or peel the skins. Excellent sliced and lightly sautéed in butter although they lose their shape if cooked too long. As a baked apple, the flesh becomes soft, and the flavor reminds us of bananas flambé. Also good for drying. Ripens about the end of September. Keeps a few weeks. Extremely hardy. Z3-5. **ME Grown.**

110A Charette, $25.25

Chisel Jersey Late Fall. Full bittersweet cider apple. Martock, Somerset, England, 19th c. One of the most famous of the Somerset bittersweets. Medium acidity, highly astringent, harsh and high in tannins. (SG 1.059, acidity 2.2g/L, tannin 4g/L) Round to slightly conic slightly greasy fruit, colored with a beautiful combination of dull opaque reds, yellows and russets. I attempted to eat one and quickly found that its "wooliness" rendered it nearly impossible to chew. In old English *chesil* means pebble—Chisel Jersey is small, hard and bitter! A spreading tree may require encouragement to develop a strong central leader. Consistent cropper. Closely related to Dabinett; they should not be relied upon to pollinate one another. One source recommends Harry Masters Jersey as a good companion in that regard. Late bloomer. Z4-6. **ME Grown.**

111A Chisel Jersey cider apple, $25.25

Apple Collections



Each collection chosen by Fedco's John Bunker, and may include varieties not listed in this catalog. Trees are individually labelled.

Hard-Cider Apple Collection A bundle of 5 trees to begin your cider orchard. Contains 2–3 sharps or bittersharps, and 2–3 bittersweets. Will include 5 different varieties. **ME Grown.**

158A Hard Cider Apple Collection, bundle of 5 for $110.00

Hard-Cider Apple Collection A bundle of 10 trees to begin your cider orchard. Contains 4–6 sharps or bittersharps, and 4–6 bittersweets. Will include at least 6 different varieties. **ME Grown.**

158B Hard Cider Apple Collection, bundle of 10 for $180.00

Heritage Apple Collection A bundle of 5 trees to begin your own heritage orchard will contain 5 different heirlooms traditionally grown in northern New England. **ME Grown.**

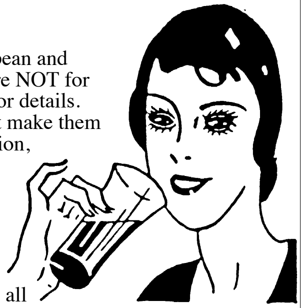
159A Heritage Apple Collection, bundle of 5 for $110.00

Heritage Apple Collection A bundle of 10 trees for your heritage orchard will contain 10 different heirlooms traditionally grown in northern New England. **ME Grown.**

159B Heritage Apple Collection, bundle of 10 for $180.00

New crabapple collection: see page 46.

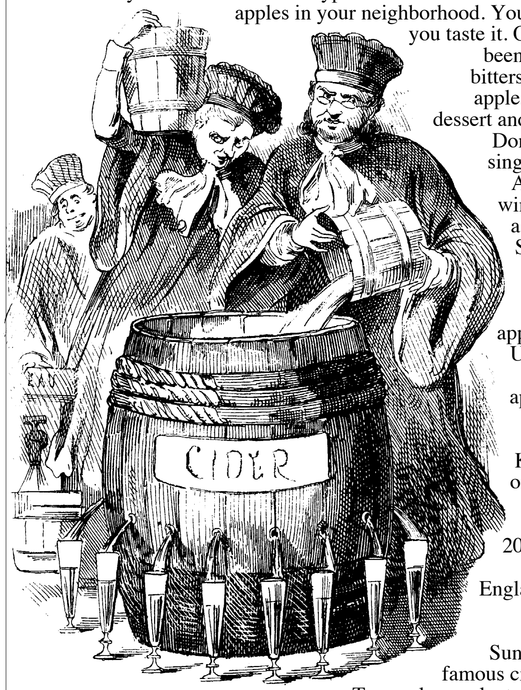
Cider Apples



Each year we offer an assortment of European and American cider varieties. Many of these are NOT for fresh eating. Please note the descriptions for details. They do however possess the qualities that make them very desirable for fermented cider production, and hard or fermented cider is what we mean by 'cider.'

Planning a Cider Orchard? It's All in the Mix!

For the best cider, plant several varieties. That's because when it comes to cider, it's all in the mix. Unlike beer, cider has only one ingredient: apples. So the apples have to provide everything: acidity, sugar and tannin. James Crowden notes in his wonderful 2008 book *Ciderland*, "…old traditional orchards [were] planted with the corresponding varieties and numbers of trees to give a well-balanced cider." We recommend you plant some sharp apples for acidity, some sweet apples for sugar and some bitter apples for the tannin. Find the acidity in "sharp" or "bittersharp" cider varieties such as Kingston Black and Brown's Apple, or from any of a number of American dessert apples such as Golden Russet and Esopus Spitzenburg. Get your sugar from bittersweet cider varieties or from sweet American varieties such as Sweet Red, Tolman Sweet or Pound Sweet. You can find tannin in any of the bittersweet types—or even from the wild roadside apples in your neighborhood. You'll know it when you taste it. Our best cider has been from about 40% bittersweet (astringent) apples and 60% mixed dessert and cooking apples. Don't vintners make single variety wines? Absolutely. Grape wines are often best as single varietals. So is perry. There are those who assume the same would be true of apples. Unfortunately, not so, as very few apples have all the necessary attributes. Kingston Black is one, but others are precious few. In December 2011, a group of us toured southwest England visiting cider makers and cider orchards. On one Sunday morning, the famous cider maker Julian Temperley spoke to us from beside a massive pile of apples at Burrow Hill Cider in Somerset. He prided himself on the jumble of 40 plus apple varieties ready for pressing that day. "We need to blend these apples to make cider," he said. "Single varietals is not cider making. It's a marketing scam!"



We classify the cider varieties into four categories: **sharp** (low in tannins, high in acid), **sweet** (high in sugar, little or no tannin, low acid), **bittersharp** (high in tannins and high acid) and **bittersweet** (high tannins and sugar, low acid, astringent). **Tannin** denotes naturally occurring compounds whose bitter astringency gives rounded full flavor, body and golden color. **Vintage** refers to those varieties that possess the perfect qualities for cider.

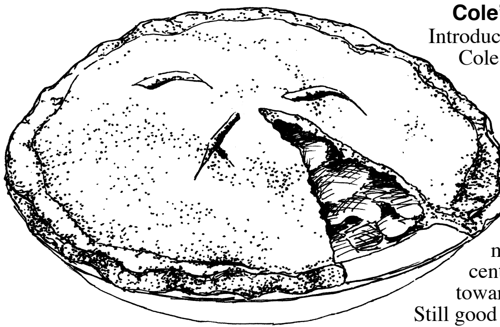
Check the apple chart on page 8 for this year's cider apples.

Cider Reading

We recommend several books on cidermaking: Two good basic books are *Cider Hard and Sweet* by Ben Watson and *Cider: Making, Using and Enjoying Sweet and Hard Cider* by Annie Proulx and Lew Nichols. *The New Cidermaker's Handbook* by Claude Jolicoeur is just out and takes cider making to a more advanced level. If you're considering a trip to the cider orchards of England, or just want to know more about English cider, pick up a copy of *Ciderland* by James Crowden.

Large orders and custom grafting

If you plan to put in a large planting, please call (207) 426-9900 or send an email to trees@fedcoseeds.com. We might have all the trees you need this spring but, because we are a small company, we might not. We *can* custom graft as many as you want of almost any variety, including dozens not listed here. We can use almost any rootstock. Please be in touch. We'd love to work with you as you plan your orchard.



Cole's Quince Summer. Introduced by Captain Henry Cole, Cornish, ME, about 1840. Large flattish-conical ribbed bright yellow fruit often with a brownish blush. Reminiscent of a quince! This is my favorite midsummer cooking apple. In central Maine they ripen toward the end of August. Still good into mid-September. Unlike many other summer varieties, you can ripen them on the tree and let them drop. They won't be funky and they don't rot if you blink a couple times. In the morning I go out to the tree, pick up the four or five that dropped overnight and put them to use. They cook up quick into morning applesauce. Delicious with oatmeal. They make an excellent pie. Productive and mostly annual. Blooms early. Z4. **ME Grown**

112A Coles Quince, $25.25

Cortland Fall-Winter. (Ben Davis x McIntosh) NY Stn, 1915. A cross between two commercial giants at the time, one (Ben Davis) on the way out and the other (McIntosh) on the way in. Although never as important as McIntosh, Cortland remains a very popular apple throughout northern New England even in this era of many new introductions. Medium to medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white flesh is very good in salads; fine-grained, crisp, tender, juicy. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent U. Mass. study showed resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4-5. Both are **ME Grown**.

113A Cortland, $25.25

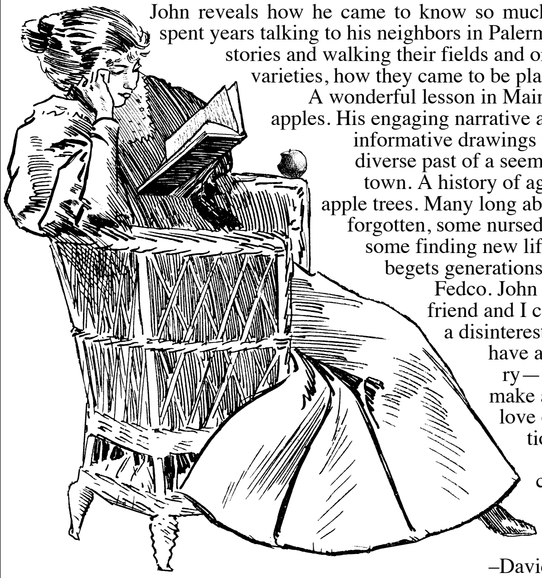
113D Cortland on B9 rootstock, $27.25

Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. Deservedly one of the three or four most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after varieties in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH (6.5–7.5+). The oldest Maine Cox's I know is about 40 years old, thriving in Mercer, Zone 4. Scab resistant. Blooms midseason. Z4-6. Both are **ME Grown**.

114A Cox's Orange Pippin, $25.25

114D Cox's Orange Pippin on B9 rootstock, $27.25

Not Far from the Tree: A Brief History of the Apples and the Orchards of Palermo, Maine, 1804-2004 by John Bunker, 200 pages, 8½ x 11, softcover.

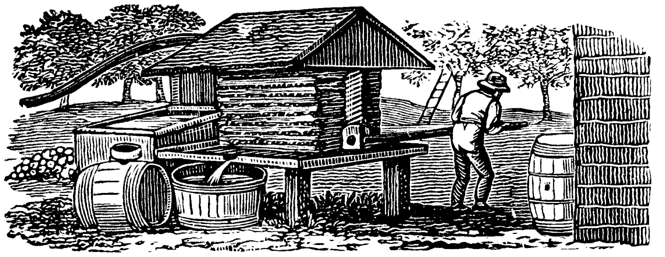


John reveals how he came to know so much about apples—he spent years talking to his neighbors in Palermo, listening to their stories and walking their fields and orchards learning the varieties, how they came to be planted there and why. A wonderful lesson in Maine history as told by apples. His engaging narrative and entertaining and informative drawings take us into the rich diverse past of a seemingly unremarkable town. A history of agriculture told in the apple trees. Many long abandoned and all but forgotten, some nursed back to health, and some finding new life as scionwood that begets generations of apple trees from Fedco. John is a colleague and a friend and I confess that I am not a disinterested reviewer. I even have a tiny part in his story—I taught him how to make an apple pie. John's love of apples and affection for his neighbors and town speak clearly through each page. Copiously illustrated in John's unmistakable style.

–David Shipman

We will donate $5 from the sale of each book to the Palermo Historical Society. Also available year-round from Organic Growers Supply.

L562A Not Far From the Tree, $22.00



Dabinett Late Fall. Medium-bittersweet cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. One of the most popular cider varieties in Somerset today and the mainstay of Poverty Lane Cider Orchards. At a MOFGA workshop, Steve Wood of Poverty Lane told us, "If you're going to plant one bittersweet, plant this one." Medium-sized roundish fruit covered with sooty brownish brick-red stripes and blush. Looks rotten even when perfectly firm and ripe. Dense astringent juicy flesh. Sugar content fair and fermentation moderate. High quality well-balanced low-acid cider with a soft-tasting tannin. Pick last week of October, blend with other late varieties. Crops annually. Grower-friendly tree with a spreading drooping habit may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. Midseason bloomer. Z4-6. **ME Grown**.

115A Dabinett cider apple, $25.25

Ellis Bitter Early Fall. Medium-bittersweet cider apple. Newton St Cyres, Devon, Somerset, England. Large oddly conic fruit—sometimes ribbed—yellowish-green mostly striped and blushed with red. White-fleshed, sweet, crisp and juicy. Soft astringent tannin (acidity 2g/L, tannin 2.4g/L). Particularly useful for its early ripening. Blend with other earlier dessert apples or cider varieties such as Brown's, Ashton Bitter, Somerset Redstreak and Major. You can also ferment it alone and blend it later on with the late apples. Still grown in England's West Country cider orchards and now being planted in the U.S. Large spreading vigorous tree produces regularly. Midseason bloomer. Z4-6. **ME Grown.**

116A Ellis Bitter cider apple, $25.25

Esopus Spitzenburg Fall-Winter. Unknown parentage. Esopus, NY, 18th c. Herman Melville wrote in his 1853 *Bartleby, the Scrivener*: "Copying law-papers being proverbially a dry, husky sort of business, my two scriveners were fain to moisten their mouths very often with Spitzenburgs, to be had at the numerous stalls nigh the Custom House and Post office." Turkey and Nippers chose well. For over 200 years the apple has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored varieties. Slightly subacid, crisp and juicy. Medium-large bright-red round to mostly conic fruit, covered with russet dots, not unlike a slightly more conical Starkey. Excellent acid source for sweet or fermented cider. Moderately vigorous tree, with easily trained wide-angle branches. Bears moderate crops. Supposedly susceptible to scab though we don't spray ours and have been happy with the fruit quality. Blooms mid-late season. Z4-7.

117A Esopus Spitzenburg, $25.25 **ME Grown.**

117C Esopus Spitzenburg on M111 rootstock, $27.25

117D Esopus Spitzenburg on B9 rootstock, $27.25 **ME Grown.**

Fameuse Early Fall. Unknown parentage. Canada, before 1700. Also called **Snow**. Excellent fresh eating, sauce and cider apple. The 1865 Department of Agriculture yearbook sums it up: "Flesh remarkably white, tender, juicy…deliciously pleasant, with a slight perfume… No orchard in the north can be counted as complete without this variety… It is just so good that everybody likes to eat of it; and when cooked, it is white, puffy, and delicious." Famous in Maine for well over 150 years. Medium-small roundish ruby-red thin-skinned fruit. Keeps until late December. Thought to be a parent of McIntosh. Productive long-lived tree. As one of the few apples that comes relatively true-to-type from seed, occasional "variations on a Fameuse theme" can be found in old orchards. Susceptible to scab. Blooms mid-late. Z3-5. **ME Grown.**

118A Fameuse, $25.25

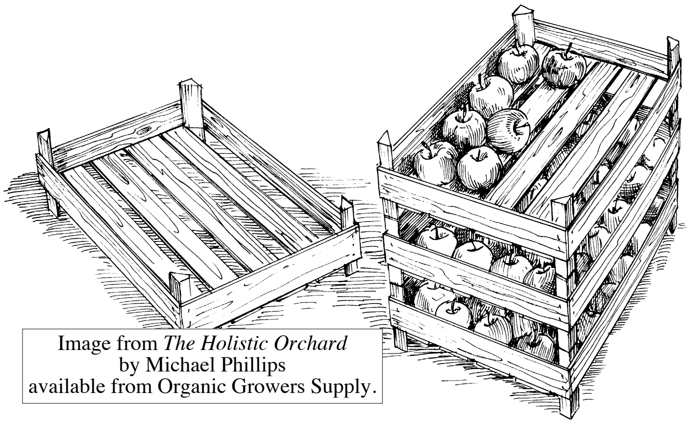
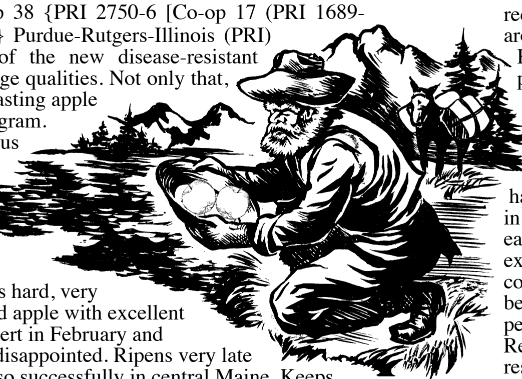


Image from *The Holistic Orchard* by Michael Phillips available from Organic Growers Supply.

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England. The champagne of cider apples, ripening late in fall, when the root cellar has finally cooled off and the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. Excellent eating; keeps all winter and well into spring. Round medium-sized hard fruit; uniform in size and shape, softens as winter progresses but maintains its superior sweet flavor. Solid deep yellow *golden russeted* skin! Medium to large vigorous diverging upcurving tree with silvery-green leaves on long willowy branches. Scab resistant. Blooms early to midseason. Z4-6.

119C Golden Russet on M111 rootstock, $27.25



GoldRush Winter. Co-op 38 {PRI 2750-6 [Co-op 17 (PRI 1689-100) x Golden Delicious]} Purdue-Rutgers-Illinois (PRI) Co-op, 1994. The first of the new disease-resistant varieties has superior storage qualities. Not only that, but it's probably *the* best-tasting apple to come out of the PRI program. Love those Golden Delicious qualities! Medium to large round-conic fruit has uniform deep greenish-yellow opaque chewy skin that turns golden in storage. Creamy white green-flecked flesh is hard, very crisp, juicy and tart. A solid apple with excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Ripens very late in fall, but will usually do so successfully in central Maine. Keeps until early May in the root cellar. Very precocious. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Moderately vigorous tree with a strong central leader. Blooms mid to late season. Z4-9. Both are **ME Grown**.

120A GoldRush, $25.25

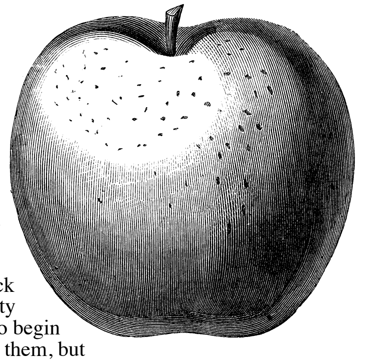
120C GoldRush on M111 rootstock, $27.25

Gravenstein Late Summer. Thought to be of 17th-century Italian or German origin. Brought to the U.S. in the early 19th century. By 1880 it was the most popular summer apple in Maine. Probably *the* most famous of all summer apples and usually considered the best of all pie apples. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *Apples of New York*. Fruit is medium to large, irregularly round, asymetrical, usually ribbed. Thin tender skin, striped with yellow, red and orange. Large vigorous productive tree with a nearly perfect wide-angle branching habit that requires practically no training. Ripens over several weeks. Too tender for colder areas of New England. Blooms early. Triploid: not suitable for pollinating other varieties. Z4-7.

121C Gravenstein on M111 rootstock, $27.25

Gray Pearmain Late Fall. Probably Skowhegan, ME, before 1880. Absolutely delicious dessert apple with a distinct pear flavor and firm white juicy mildly tart flesh. Medium-sized obscurely ribbed and muffin-shaped fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Pick them late—even after the Spies. Eat them in the fall, winter or spring. Produces excellent juice. Keeps extremely well. The most unusual variety Steve and Marilyn Meyerhans grow at The Apple Farm in Fairfield, ME. Mentioned as being grown by CA Marston of Skowhegan, just a few miles from The Apple Farm, in the 1885 *Maine Agricultural Yearbook*. There were five or six of the trees in the orchard when Steve and Marilyn purchased it over 30 years ago from Royal Wentworth. Those trees were already old. Unfortunately they never thought to ask the soft-spoken Wentworth about the apple. Its true origin may remain forever a mystery. Annually bearing manageable easy-to-grow medium-sized spreading tree. Blooms midseason. Z4-6. **ME Grown**.

122A Gray Pearmain, $25.25



Grimes Golden Fall. Unknown parentage. West Virginia, c. 1804. All-around excellent variety grown in old Maine orchards for over 100 years. Medium-sized roundish fruit with opaque yellow skin, scattered with grey russet dots and an occasional faint blush. Thought to be a parent of Golden Delicious. Tart citrusy crisp dense firm fruit is excellent for dessert and cooking: wonderful spicy fresh eating and wonderful applesauce. Makes a thick sweet cider and a good single-variety hard cider: light and fruity. Tends to begin dropping fruits before you can pick them, but fret not—they're ready to eat. Just collect them off the ground as they fall and use them up. Then pick the rest off the tree and store in the root cellar until spring. Productive, annual bearing, precocious. Highly recommended. Z4-6.

123A Grimes Golden, $25.25 **ME Grown**.

123D Grimes Golden on Bud 9 rootstock, $27.25

Harry Masters Jersey Fall. Medium-full bittersweet cider apple. Often called **Port Wine** in north Somerset. Probably introduced by Harry Masters, Yarlington Mill, South Somerset, England, before 1900. High-quality bittersweet variety recommended for blending with other fall varieties. Soft astringent tannin (SG 1.056, acidity 2g/L, tannin: 3.2g/L) Becoming popular commercially in New England in recent years. Poverty Lane Orchards has several rows. Medium-large oblate-conic fruit, mostly covered with bright red stripes and blush, and nearly always featuring a splash of yellow russet around the stem. Harry Masters himself was *the* miller at Yarlington Mill. Harry Masters Jersey and Yarlington Mill are thought to be of the same parentage. Blooms midseason. Z4-7. **ME Grown**.

124A Harry Masters Jersey cider apple, $25.25

Honeycrisp Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, described as "explosively crisp," mottled and striped red over yellow. Cream-colored flesh is sweet and juicy with hard snapping-crisp texture. Mild aroma and subacid flavor are top quality in September and improve steadily in storage. Unusual because it ripens in early fall yet keeps up to seven months in the root cellar. First of the many excellent University of Minnesota introductions to receive large-scale commercial attention, now has a huge following. Has become our best-selling apple. Probably best planted north of Massachusetts; has not performed as well in warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3-4.

125A Honeycrisp, $25.25 **ME Grown**.

125C Honeycrisp on M111 rootstock, $27.25

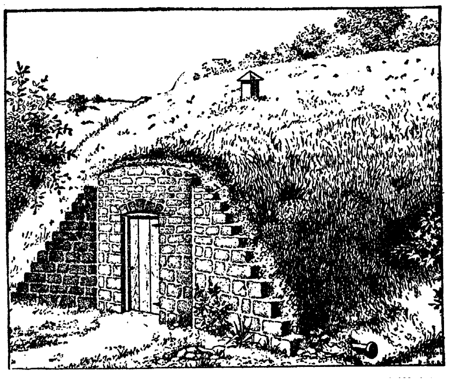
125D Honeycrisp on Bud 9 rootstock, $27.25

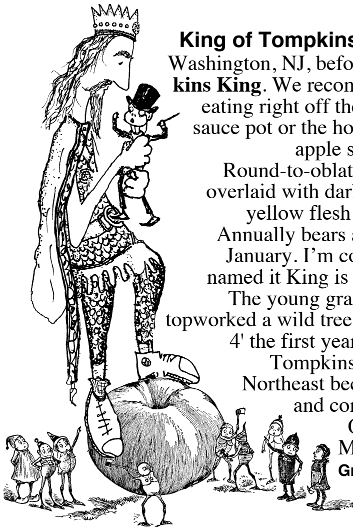
Judy Summer. Unknown parentage. Rome, ME, before 1873. Beautiful early sweet dessert and cooking apple. Solid red roundish-conic fruit, covered with tiny russet dots. One of Russell Libby's great finds. He discovered what may well be the world's last Judy tree while poking around at a yard sale in Belgrade twelve years ago. The variety originated a few miles away on the north side of Great Pond in Rome. This particular specimen was likely set out by Carroll Sawyer whose grandson Terry is the current owner of the property. According to Terry, the tree was old when he was a kid and the red fruit is "earlier than any I know." Annual bearing. Extremely rare. Z4-6. **ME Grown**.

126A Judy, $25.25

Keepsake Winter. MN 1593 (MN 447 x Northern Spy). U Minn, 1979. Aptly named fruit keeps until June or even July in the root cellar. Very fine-textured light-yellow flesh is hard, crisp, juicy and sweet. Excellent aromatic flavor, but you must wait at least a month after picking. The irregular conic medium-sized fruit is almost entirely overlaid with stripes and a wash of very deep red. Moderately vigorous medium-sized tree usually bears annual crops. A northern grower on the North American Fruit Explorers (NAFEX) email discussion group called it "my most agreeable, reliable, grower overwhelmingly friendly apple. I have to thin the whoopee out of it every year. Big fruit. Big taste. Keepsake! Keepsake! Keepsake!" Recently discovered to be one of the parents of the sensational Honeycrisp. Somewhat resistant to scab. Blooms late. Z3-5. **ME Grown**.

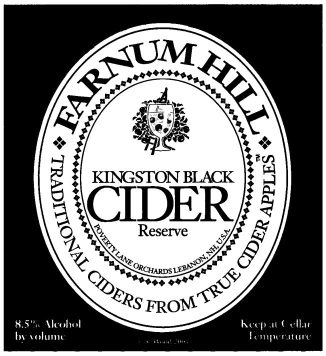
127A Keepsake, $25.25





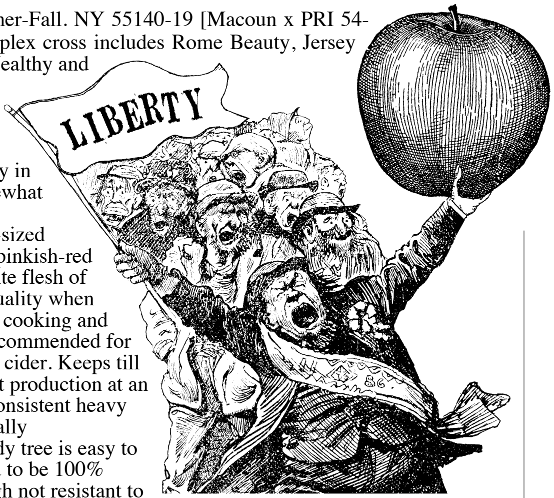
King of Tompkins County Fall. Unknown parentage, Washington, NJ, before 1800. Also called **King** or **Tompkins King**. We recommend this large juicy fruit for sweet eating right off the tree in October as well as to fill the sauce pot or the home cider press. Even the experts and apple snobs never pass up King in October. Round-to-oblate blocky lumpy fruit, almost entirely overlaid with dark orange-red stripes and blush. Crisp yellow flesh, tender, coarse with balanced flavor. Annually bears a medium to heavy crop. Keeps until January. I'm convinced that one of the reasons they named it King is its incredible vigor and productivity. The young grafted trees outgrow all others. When I topworked a wild tree at our place a few years ago, it grew 4' the first year! Gained recognition in New York's Tompkins County and later spread all over the Northeast becoming extremely popular as a home and commercial variety in the 19th century. Old trees still found here and there in Maine. Blooms midseason. Z4-7. **ME Grown**.

128A King of Tompkins County, $25.25


FARNUM HILL
TRADITIONAL CIDERS FROM TRUE CIDER APPLES
KINGSTON BLACK
CIDER
Reserve
POVERTY LANE ORCHARDS LEBANON, NH, USA
8.5% Alcohol by volume
Keep at Cellar Temperature

Kingston Black Fall. Bittersharp cider apple. Unknown parentage. Somerset, England, early 19th c. High in tannin and acidity. Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the few varieties that makes a high-quality *single variety* hard cider, also good in a blend. We've become fans of Farnum Hill's tasty Kingston Black varietal. Also makes superb fresh cider. Medium-sized conical beautiful rich red fruit, mottled with red russet and deeper shades of maroon (but not black!) Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4-6. **ME Grown**.

129A Kingston Black, $25.25



Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Co-op complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)] NY Stn, 1978. Often cited as the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe. Excellent cooking and sweet cider, too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab-immune, though not resistant to insects or other lesser apple diseases. Allowing Liberty to crop too heavily at a young age can stunt final tree size and reduce productivity. Even with mature trees, thinning fruit clusters is important to maintain fruit size. Blooms early to midseason. Z4-6.

130A Liberty, $25.25 **ME Grown.**

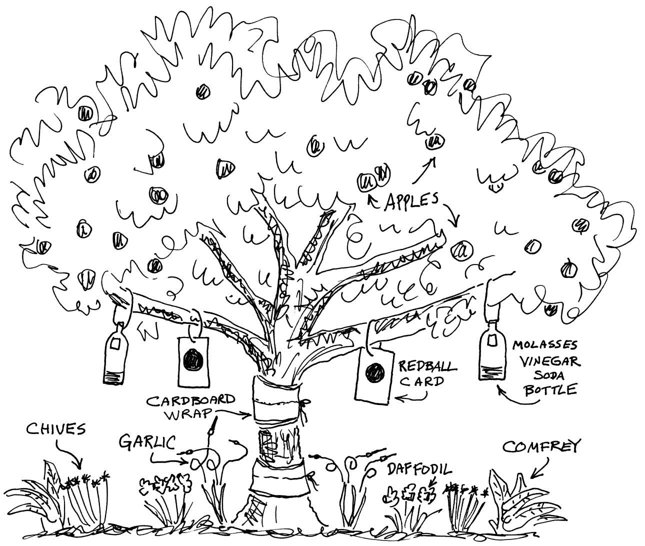
130C Liberty on M111 rootstock, $27.25 **ME Grown.**

130D Liberty on Bud 9 rootstock, $27.25

Macoun Fall. NY 547 (McIntosh x Jersey Black) NY Stn, 1923. This is an apple with a near cult following, even though practically no one seems to know how to pronounce the name. (It rhymes with town, not tune!) Especially good choice for those who like McIntosh but live south of the Maine border where Macs might not reach their prime. Medium-sized ribbed lobed truncate fruit, almost entirely covered with a dark purplish-red blush. The very juicy aromatic white flesh is crisp with a rich sweet flavor. Excellent for fresh eating. Large vigorous upright spreading tree. Moderately productive. Although susceptible to scab, the fruit appears to be less affected than McIntosh. Macoun also shows some natural resistance to insect damage. Blooms mid-late season. Z4-6. **ME Grown.**

132A Macoun, $25.25

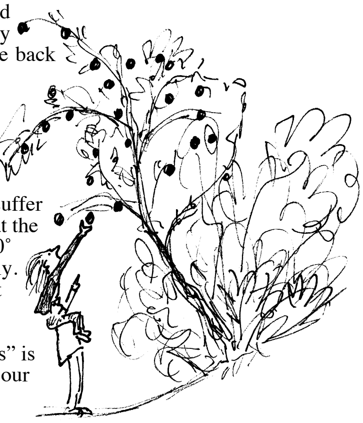
ME Grown = grown in Maine by a member of the Fedco growers coop.



Functional Orchard Update

For decades we have grown many of the woody plants we offer in this catalog on our farm. At a certain point, we gave up the distinction between "fruiting" and "ornamental" plants. We grow fruit trees next to roses and lilacs, with comfrey down below. Roses, kiwis, grapes and canary creeper all share the same arbor. The asparagus grows under the plums. And so on.

A few years ago, as many of you know, we cleared an acre to get more light to the PV panels that supply our farm with electricity. Shortly thereafter, we planted 40 standard apple trees on that cleared piece. We decided not to plant grass in the orchard. Instead, we pulled out some stumps but left most of them, piled up the brush and buried it all in "hugel mounds." Then we began to add woody and herbaceous companion plants: plants that attract pollinators and beneficial insects, improve the soil, deter disease and so on. Our goal has been to create a sustainable ecosystem for all the plants, one that requires a different kind of human intervention. (Put away the lawn mower and sprayer. Do a lot less weeding.) We have planted a polyculture. No more monocultures! We call it the "functional orchard."



Our role model has been that odd neglected apple tree in the brush by the side of the road, or somewhere back in the woods, planted by a deer or chipmunk or a passing motorist, never pruned or weeded or anything else. And yet, the fruit is perfect. No bugs. No disease. How can that be?

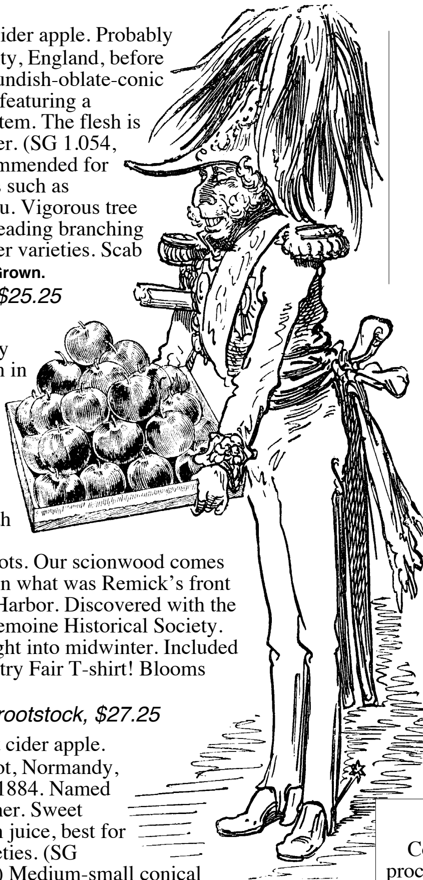
When there's a drought, plants suffer or even die. When they get water at the right time, they grow. When it's 80° in March, they flower a month early. If it's sunny during bloom, you get fruit set. Plants respond to the environment in which they find themselves. Our job as "orchardists" is to create that ideal environment in our yards. All agriculture, including orcharding, is a contrived system. Otherwise, it wouldn't be agri*culture*. At its best, it's a collaboration between people and plants. We're partners in this adventure.

What's our role in the collaboration? We all could start by becoming observers. If we're clever, we learn from those observations. As we create our own gardens and orchards, we put those observations to work.

We have introduced dozens of species to our functional orchard. We have allowed "volunteer" plants to come up and we watch them and learn *from them* what role they would like to play. Why have they chosen to spontaneously appear? We allow the plants themselves to intermingle. It's a plant version of the perpetual motion machine. We set it up. Then we flip the switch. Then, as much as we dare, we get out of the way. Benign neglect?

The 40 apple trees in our new orchard are not very big yet. The largest are about 8'. Although ultimately we hope they produce lots of fruit, our "orchard" is already producing heavily. This year, we will have a potato crop, grapes, blackberries, sunflowers, pole beans, a dozen different herbs and enough flowers for a hundred weddings. By next summer we'll have blueberries, elderberries, raspberries, Jerusalem artichokes, rhubarb and asparagus. All in the orchard. The apples are only one part of the team. They are part of a system. It looks like something halfway between a jungle and complete chaos, but that's okay. So does nature!

There's more information about all this scattered throughout this catalog. For a bunch more about our functional orchard, including reprints and downloads, go to fedcoseeds.com or check us out on Facebook.



Major Early Fall. Full-bittersweet cider apple. Probably originated in central Somerset County, England, before 1900. Medium-sized pinkish-red roundish-oblate-conic fruit, sometimes ribbed and usually featuring a yellowish russet splash around the stem. The flesh is sweet, soft, “woolly,” juicy and bitter. (SG 1.054, acidity 1.8g/L, tannin 4.1g/L) Recommended for combining with other early varieties such as Ashton Bitter, Ellis Bitter and Nehou. Vigorous tree with a good central leader and a spreading branching habit. Similar to the Jersey-type cider varieties. Scab resistant. Late blooming. Z4-6. **ME Grown.**

133A Major cider apple, $25.25

Marlboro Fall-Winter. Marlboro, Hancock County, ME. Introduced by Seneca Remick (1834-1902), known in the area as “Captain” Remick. Extremely rare fresh-eating and cooking apple. Crisp firm white pleasantly tart flesh. Makes a deep rich yellow tangy applesauce. Medium-sized fruit is slightly roundish-oblate, mostly covered with rich crimson, russet patches and netting, and very prominent white dots. Our scionwood comes from the original tree still standing in what was Remick’s front yard in Marlboro, not far from Bar Harbor. Discovered with the help of Don and Jo Cooper of the Lemoine Historical Society. Best eating in fall. Good cooking right into midwinter. Included on the 2009 Common Ground Country Fair T-shirt! Blooms midseason. Z4-6. **ME Grown.**

134B Marlboro on B118 rootstock, $27.25

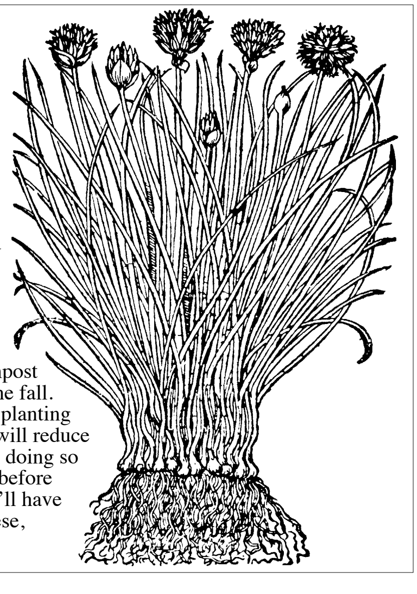
Michelin Fall. Medium-bittersweet cider apple. Developed by Mr. Legrand of Yvetot, Normandy, France. Introduced into England in 1884. Named after a famous French cider researcher. Sweet astringent juicy flesh and soft tannin juice, best for blending with other midseason varieties. (SG 1.050, acidity 2.5g/L, tannin 2.3g/L) Medium-small conical ribbed pale green fruit dotted with russet and sometimes slightly blushed. Resembles Tolman Sweet or maybe a thousand wild Maine roadside seedlings. Not as high in quality as other bittersweets but extremely popular in modern English cider orchards because of its reliability and productivity. Medium-sized tree with upright multi-leader habit. Midseason bloomer. Z4-6. **ME Grown.**

135A Michelin cider apple, $25.25

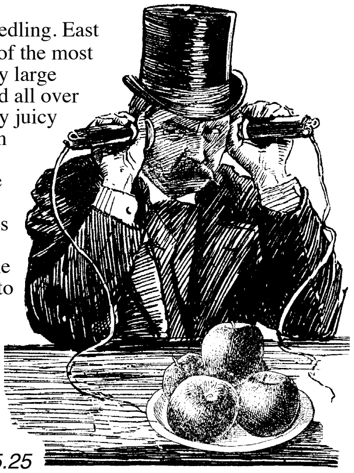
Nehou Early Fall. Bittersweet cider apple. Possibly Nehou, Normandy, France, before 1900. Introduced by H.P. Bulmer Ltd, Hereford, England, c. 1920. Full bittersweet variety of excellent quality, suitable for blending with other early ripeners. Cheerful yellow roundish-conic medium-small fruit, often with a pinkish blush. Soft, juicy, low-acid, sweet and astringent. (acidity 1.7g/L, tannin 6g/L) Although called Nehou in English cider literature, as far as we can tell, there’s no French cider apple by that name. Boré and Fleckinger’s comprehensive *Pommiers à cidre: variétés de France* includes no listing. More than likely it’s an old Normandy bittersweet that the H.P. Bulmer cider company brought to England. Midseason bloomer. Z4-7. **ME Grown.**

136A Nehou cider apple, $25.25

Scab and Chives



Scab is the worst fungal disease affecting apples in New England. You can greatly reduce scab pressure by avoiding McIntosh, Cortland, Fameuse and any “Mac” relatives. But this is a tough call since they are all excellent varieties. You can also reduce scab pressure by picking up drops, cleaning up or mowing fallen foliage in the fall, and spreading a thin bit of lime and/or compost over the fallen foliage in the fall. Now there are reports that planting chives around apple trees will reduce scab pressure. We’ve been doing so and will give you a report before long. At the very least, we’ll have plenty for our cottage cheese, salads and baked potatoes.



Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose fruit, covered all over with pink and light red stripes. Very juicy and tender. Even when the thin skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is more than well deserved: makes a very good single-variety pie! Its one drawback is being slow to come into bearing, although for us it’s been worth the wait. Medium-to-large moderately vigorous long-lived tree. Prefers fertile well-drained soil. Good scab resistance. Leafs out late and blooms late season. Z4-6. Both are **ME Grown.**

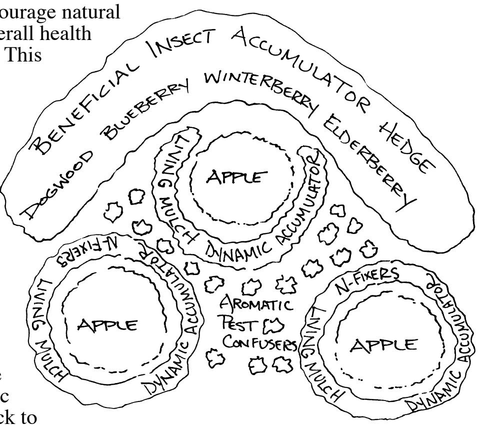
137A Northern Spy, $25.25

137C Northern Spy on M111 rootstock, $27.25 (2-4')

Pewaukee Fall-Winter. Duchess x Northern Spy. George Peffer intro, Pewaukee, WI, about 1842. A cross between two of the best culinary apples. Recommended for pies and sauce and other kitchen use. Cooks up fairly quickly into a light-yellow smooth tart sauce. Yellowish flesh is crisp, firm, juicy, tender and subacid. Medium-sized roundish ribbed ruddy-red striped and blushed fruit. Very distinctive because of the small pronounced protuberance nearly always found next to the stem. The fruit has pretty much no cavity at all, making it easy to identify once you’ve seen one or two. Keeps until midwinter. Typically grown in old Maine orchards but ancient trees can still be found now and then all across northern New England. Very long-lived, healthy and hardy. Blooms late. Z3-5. **ME Grown.**

138A Pewaukee, $25.25

Companion Plants for the Orchard



Companion plants encourage natural processes that benefit overall health and vitality of fruit trees. This means less work lugging around sprayers, buying fertilizer, spreading compost and worrying about pollination. These plants help us do the work and they do it well. (For more tips on attracting and supporting pollinators, see page 18.)

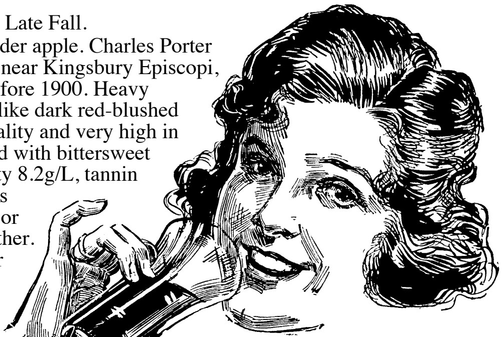
Companion plants play important roles in the orchard as:

Living Mulches produce large quantities of organic matter that can be cut back to decompose around tree bases, enriching the soil.
Dynamic Accumulators have long taproots that bring up minerals from deep subsoil. Cut foliage throughout the season to break down around trees, creating dark nutrient-dense soil.
Nitrogen-Fixers transform nitrogen from the air to the soil where it can be absorbed by tree roots.
Beneficial Insect Accumulators contain nectar sought by predatory insects (aka beneficial insects, including braconid wasps, syrphid flies, and lacewings) that feed on fruit-tree pests. BIAs also attract orchard pollinators.
Pest Confusers have bitter aromas that deter and confuse insect pests from eating fruit.

When planting your orchard consider:
Once established, companion plants do not require a lot of care; they will do fine on their own.
Planting companions in groups, masses or hedges is often more effective than planting individuals. Think nature!
Planting woody shrubs and beneficial insect accumulators along orchard borders so they can flower and thrive undisturbed out of the way of the mower. Others such as Living Mulches, Dynamic Accumulators and herbaceous Nitrogen Fixers can be placed closer to the trees. Cut them and let the foliage decompose to nourish feeder roots.

Our top 10 companions are comfrey, daffodils, dogwoods, horsetail, hyssop, chives, Siberian peashrub, sweet cicely, tansy and yarrow.

Don’t limit yourself—there are many more! See the plant chart on pages 50–51 for other suggestions. Those not offered by Fedco can be found elsewhere, often by the side of the road or in your own backyard.

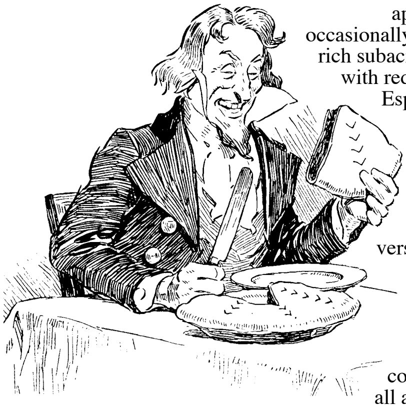


Porter's Perfection Late Fall. Medium-bittersharp cider apple. Charles Porter intro, East Lambrook, near Kingsbury Episcopi, Somerset, England, before 1900. Heavy cropper of small crab-like dark red-blushed fruit. Of very good quality and very high in acid, at its best blended with bittersweet fruit. (SG 1.054, acidity 8.2g/L, tannin 2.5g/L) Often produces twins or triplets—two or more fruits fused together. Whenever I meet cider makers, I always ask them about their favorite varieties. A recent conversation with a Geneva, NY, grower yielded this response: "Porter's Perfection." Similar to the excellent Lambrook Pippin; the two varieties are thought to be of same parentage. Blooms midseason. Z4-7. **ME Grown.**

139A Porter's Perfection cider apple, $25.25

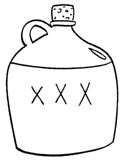
Priscilla Fall-Winter. Co-op 4 [PRI 1659-1=(Starking Delicious x PRI 610-2)] PRI Co-op, 1972. (PRI 610-2 is a complex cross including Rome, *M. floribunda* 821, Golden Delicious and McIntosh.) Dark red conical scab-immune fruit with a very good crisp sweet flavor. The second variety released in the PRI disease-resistance breeding program and still one of its best. Rarely found in catalogs anymore, perhaps because the patent ran out. This is as close as you'll get to the dreaded Red Delicious in a Fedco catalog. But no apologies—it's a very good dessert apple. I prefer it to Liberty. Very productive—you will likely need to thin your crop to boost the fruit size. Resembles Empire but without the scab susceptibility. Also resistant to sooty blotch. Will keep into midwinter. Blooms midseason. Z4-7. **ME Grown.** (2-4')

140C Priscilla on M111 rootstock, $27.25



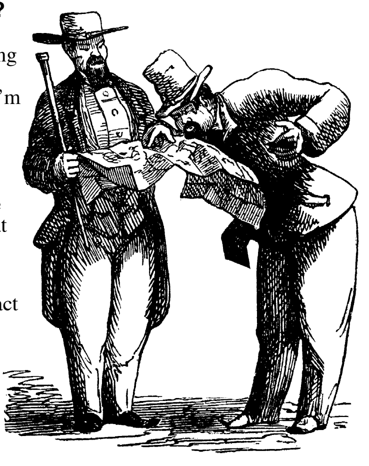
Red Astrichan Summer. Thought to be from Astrakhan, Russia, prior to 1800. *The* standard Maine summer cooking apple for generations. Still found occasionally in old Maine dooryards. Juicy rich subacid white flesh frequently tinged with red makes a highly colored sauce. Especially loved for its distinctive flavor in pies. Medium-sized somewhat oblate fruit, splashed or sometimes solidly covered with dark red. An obvious russet patch surrounds the stem. Resembles a junior version of a Wolf River. Keeps for a few weeks with refrigeration. Fruit ripens over a period of several weeks in midsummer, making it perfect for the home orchard and lousy for the commercial folks who want them all at once. After finding its way to Sweden, the apple traveled to England and finally to Massachusetts in 1835. From there it quickly spead throughout New England and beyond. Very hardy. Blooms early. *Order early; in very short supply!* Z3-6. **ME Grown.**

141A Red Astrichan, $28.00



For the ultimate cider experience join us at the 19th annual Cider Days festival in Franklin County, MA, on November 2–3, 2013. An old-fashioned weekend of workshops, panels, orchard tours, tastings, dinners and everything cider. If you are into apples and cider, it is just the thing for you. Join Fedco's John Bunker and cider enthusiasts and celebrities from all over the U.S. and Canada for an educational—and very fun—weekend.

Where can I taste that apple?



While we pride ourselves on our variety descriptions, there's nothing like the real thing. No words can compare to the taste. Frequently I'm asked, "Where can I taste a ….?" Here are a few suggestions.

The best place to taste apples in Maine is the **Great Maine Apple Day**, Sunday, October 27, 2013, at MOFGA in Unity.

Maine:

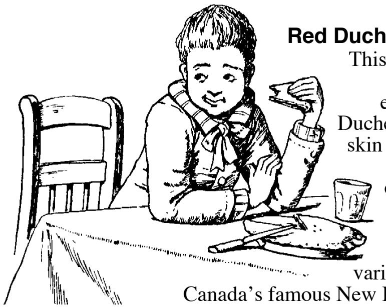
Visit the orchards near you. Contact the Maine Dept of Agriculture at (207) 287-3491 or online at getrealmaine.com for a complete list of the orchards in Maine. Many have unusual varieties. Even one or two rare finds can be worth the trip. Below are a few orchards with wonderful collections. I'm sure there are others. Don't be frustrated if you call and reach no one. Just go. By September most of them are open 6 or 7 days a week.

- Ricker Hill Orchards, Turner, Androscoggin County (207) 225-5552, rickerhill.com. Organic apples and more, mostly modern varieties.
- Sweetser's Apple Barrel and Orchards, Cumberland Center, Cumberland County (207) 829-3074, maineapple.com. A great collection of 39 old and new varieties. Their pride and joy is an ancient Rolfe tree. Don't miss it.
- Bailey's Orchard, Whitefield, Lincoln County (207) 549-7680. One of the largest collections of old varieties in the state. Pears, plums and crabapples, too.
- Lakeside Orchards, Manchester, Kennebec County (207) 622-2479, lakesideorchards.com. Organic apples and a good collection of mostly new varieties.
- Maine-ly Apples, Dixmont, Penobscot County (207) 234-2043, mainelyapples.com. A growing collection of old and new varieties.
- Rollins Orchard, Garland, Penobscot County (207) 924-3504, rollinsorchards.com. A very good collection of over 20 unusual old varieties. Plums and pears, too.
- Sandy River Orchard, Mercer, Somerset County (207) 587-2563, sandyriverapples.com. Established in 1852 by the Fenton family. A huge collection of over 140 varieties, many old and unusual.
- The Apple Farm, Fairfield, Somerset County (207) 453-7656. A great collection of unusual old and new varieties.
- Cayford Orchards, Skowhegan, Somerset County (207) 474-5200, cayfordorchards.com. Fifty-seven new and heirloom varieties of tree fruit on a sixth-generation family farm.
- Sewall Orchard, Lincolnville, Waldo County (207) 763-3956, sewallorchard.com. Organic apples including some of the first disease-resistant releases.
- Doles Orchard, Limington, York County (207) 793-4409, dolesorchard.com. Mix of old and new. They have two un-named varieties crossed by the late Maine plant breeder Russell Bailey. Both are extremely rare, if not unique.

Other New England States:

I know a few orchards with good collections outside of Maine. If you know of any we should list, please let us know. An online search could direct you to an orchard nearby.

- Nashoba Valley Winery, Bolton, MA, (978) 779-5521, nashobawinery.com. A very large collection of old and new varieties.
- Tower Hill Botanic Garden, Boylston, MA (508) 869-6111, towerhillbg.org. The best collection of historic varieties in New England. At last count 119, all labeled in an arboretum-type setting. A great place to study the fruit. Usually for sale at a special event on Columbus Day weekend. Call ahead.
- Hutchins Farm, Concord, MA (978) 369-5041, hutchinsfarm.com. Nice collection of old and mostly newer varieties.
- Old Sturbridge Village, Sturbridge, MA (508) 347-3362, osv.org. Apple days: October 5–6, 2013.
- Gould Hill Orchard, Contoocook, NH (603) 746-3811, gouldhillfarm.com. Large collection of new and old varieties.
- Poverty Lane Orchards, Lebanon, NH (603) 448-1511, povertylaneorchards.com. Likely the best collection of unusual dessert apples in New England. One of the largest collection of cider apples in the U.S. They have most of the cider varieties we sell.
- Alyson's Orchard, Walpole, NH (603) 756-9800, alysonsorchard.com. Large collection of new and old varieties.



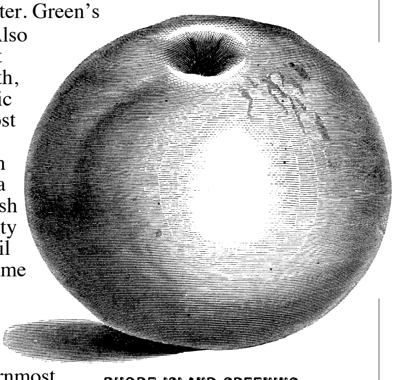
Red Duchess Late Summer. Russia, 17th c. This year we're offering a red strain of the famous Russian apple. Same excellent qualities as the "original" Duchess of Oldenburg but with a redder skin color. Duchess was planted extensively wherever growers needed extreme hardiness and is still quite popular in most of northern New England. Aroostook County's favorite apple. Parent of many varieties including Dudley Winter and Canada's famous New Brunswicker. Medium-sized round red-striped fruit is mostly covered with crimson. Yellow firm fine-grained crisp tender juicy subacid aromatic flesh is highly esteemed for all sorts of cooking. One of the best pie apples for coldest districts. Makes a pie with a tart flavorful zip and cooks up quickly into thick creamy delicious sauce. Prolific precocious small to medium-sized adaptable tree. Scab resistant. Blooms early-midseason. Z3-4.

142A Red Duchess, $25.25

Redfield Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered way too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies. It makes wonderful jelly and turns sauce and cider red. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney of West County Cider. Very sharp and bitter in cider-makers' lingo. Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightening bolts. And the bronze-red foliage adds further interest all season. Sometimes listed as a crabapple, but don't be fooled: the apples are the size of a Mac. One of the very first to bloom each year. Z3-6. **ME Grown.**

143A Redfield, $25.25

Rhode Island Greening Fall-Winter. Green's Inn, near Newport, RI, about 1650. Also known as **Greening**. One of the most important American apples of the 17th, 18th and 19th centuries and *the* classic New England cooking apple. The most famous of all the various Greenings. Great for pies, also excellent for fresh eating. Large green fruit usually has a tannish blush. Light yellow-green flesh is crisp and tart. Due to its high-quality fruit and adaptability to a range of soil conditions, Greening eventually became popular all over New York and New England. Keeps until late winter. About as hardy as Baldwin. Old trees can still be found in central Maine. Not recommended for northernmost districts. Late-season bloomer. Z4-7. **ME Grown.**


RHODE ISLAND GREENING.

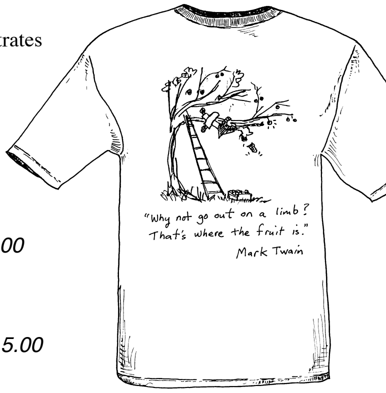
144A Rhode Island Greening, $25.25

Rolfe Early Fall. Blue Pearmain seedling. Abbot, ME, about 1820. First called **Macomber**. Medium-sized round rosy-red striped and blushed fruit. Firm, sweet, mild. Excellent fresh eating and cooking for those who love McIntosh but don't want to deal with scab. We never spray ours for scab and we get excellent fruit. Popular in the 19th century in most cold regions of Maine, filling the fall McIntosh niche before Mac's rise to fame. Although it was Jeremiah Rolfe who recognized the value of the apple that now bears his name, it was the Reverend Thomas Macomber who gave him the seedling tree, and it was Betsy Houston who originally planted the Blue Pearmain seed that spawned the first tree. Two commercial orchards still grow the apple: Sweetser's in Cumberland Center and Olmstead's in Charleston. Keeps through the fall. Blooms midseason. Z3-5. **ME Grown.**

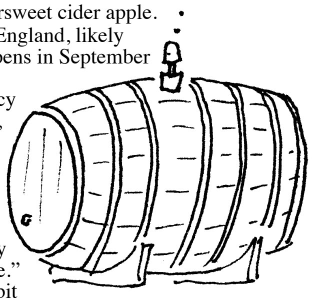
145A Rolfe, $25.25

Fedco Trees T-shirt What a combination! John Bunker illustrates Mark Twain on this unbleached organic 100% cotton crewneck. Ecru shirt has black design highlighted by red apples. Printed in Maine.

L561A Fedco Trees T-shirt small, $15.00
L561B Fedco Trees T-shirt medium, $15.00
L561C Fedco Trees T-shirt large, $15.00
L561D Fedco Trees T-shirt extra large $15.00


"Why not go out on a limb? That's where the fruit is."
Mark Twain

Somerset Redstreak Early Fall. Bittersweet cider apple. From the Sutton Montis area, Somerset, England, likely well before 1900. Medium bittersweet ripens in September in central New Hampshire, best used for blending. The white flesh is "wooly," juicy and astringent. (SG 1.050, acidity 1.9g/L, tannin 2.8g/L) After its inclusion in the Long Ashton cider trials in the early part of the 20th century, it became popular in many modern Somerset cider orchards. Medium-sized roundish-oblate (flattened) fruit, striped and blushed shiny red. Steve Wood calls this "a lovely apple." Productive tree has an upright growth habit and may require heading back the central leader in early years to develop strong lateral branches. Scab resistant. Midseason bloomer. Z4-7. **ME Grown.**



146A Somerset Redstreak cider apple, $25.25

Spice Sweet Late Summer. Probably Massachusetts, before 1850. Roundish ribbed fruit, mostly covered with a red blush and some darker stripes. Large prominent grey-russet dots. Magnificent pies! Also good fresh eating. Crisp, tart and somewhat juicy. In 2011, a fabulous apple year in central Maine, Fedco's Laura Childs located the ancient tree on the Bickford Farm in North Belgrade. She told me that the family called them Old Spice or simply Spice. As she tells it, "I went back to the tree and picked a few apples—at first bite there was no mistaking its identity—they tasted like someone sprinkled spices on them….The apples tasted like no other, and the pies made from them were unforgettable." Laura and I returned to the tree and I took enough home to make a pie at our place. The orangey slices held their shape and the pie itself had a delicious fruity flavor. Ripens about mid-September in central Maine. Z3-6. **ME Grown.**

147A Spice Sweet, $25.25

Stoke Red Late Fall. Bittersharp cider apple. Also called **Neverblight**. May have orginated in Rodney Stoke or near Wedmore, Somerset, England. Medium-sized round-conic fruit covered with dark red radiating stripes that blend into a nearly solid glowing red and pink blush. Some russet dots and netting. Very attractive. Sharp juice with some astringency. Very sharp cider. Consistent heavy cropper and a reputation in the U.K. for resistance to pests and disease. Very scab resistant. (Neverblight!) Pick late in the fall and combine with other late varieties. Blooms late season. Z4-6. **ME Grown.**

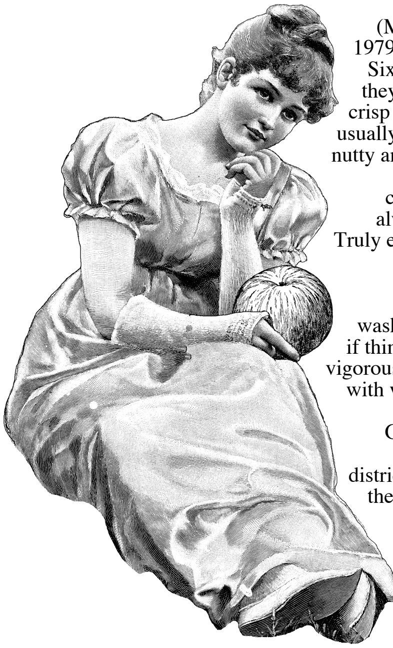
148A Stoke Red cider apple, $25.25

Summer Sweeting Summer. Originated on the farm of Ichabod Thomas, Sidney, ME, about 1800. Also called **King of Sweetings**, **King Sweet**, **Sidney Sweet**, **Sidney Sweeting** or **Thomas Sweet**. Medium-small tasty yellow fruit has a beautiful golden apricot-orange blush. Firm somewhat dry yellowish flesh with a mild sweet distinctly interesting flavor, best for summertime fresh eating. We begin to pick them around August 10. Cooks up into a nice tropical-flavored sauce—with hints of banana and pineapple—in about ten minutes. One of several rare varieties that longtime collector and orchardist Earland Goodhue of Sidney introduced to me. The first apple the neighborhood kids coveted every summer when Earland was growing up in Sidney a century ago. Healthy vigorous upright compact productive tree. Pick them off the tree or off the ground for about two weeks. Blooms midseason. Z4-6. **ME Grown.**

149A Summer Sweeting, $25.25

Sweet Red Fall. Somerset County, ME, Eastern NJ, or Chenango County, NY, perhaps late 1700s. Possibly the same as **Victoria Sweet** and/or **Granniwinkle**. We pick this apple at the Apple Farm in Fairfield, ME. Royal Wentworth, former longtime owner of the orchard, always called it Sweet Red. Medium-sized roundish red-striped and blushed fruit. Low in acidity and high in sugar. We like it for cooking and apple molasses. Makes a surprisingly tart smooth beautiful sauce. I've spent a lot of time attempting to establish its true identity. After a tip from orchardist Eliza Greeman a few weeks ago, we now think that it might be Victoria Sweet. Old literature suggests that Victoria Sweet might be synonymous with the coveted and much sought after cider apple Granniwinkle. This year we'll try it in cider! Z3-6. **ME Grown.**

150A Sweet Red, $25.25



Sweet Sixteen Fall. MN 1630 (MN447 x Northern Spy) U Minn, 1979. Whenever anyone eats a Sweet Sixteen for the first time, you know they will be surprised. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. I always love Sweet Sixteen season. Truly excellent fresh eating, although it is too sweet for some palates. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Grower-friendly. Reaches its best flavor and texture in northern districts. Keeps till midwinter. One of the wonderful progeny of Frostbite. We hope to introduce more of them! Some resistance to scab. Blooms mid to late season. Z3-6. **ME Grown.**

151A Sweet Sixteen, $25.25

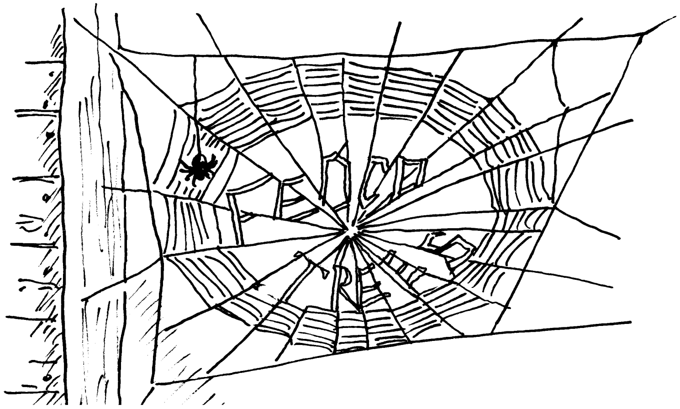
Tolman Sweet Fall-Early Winter. Unknown parentage. Sometimes called **Talman Sweet**, **Taulman Sweet**, **Tomey Sweet** and a host of other variations. Possibly from Dorchester, MA. Extremely old. One of the first American apples and one of the few to remain popular for centuries. Truly an all-purpose fruit, used for cooking, dessert and even animal fodder. Once popular for pickling, boiling and baking. Interesting peculiar sweet strange flavor you'll never forget. Likely *the* most recognizable flavor of any apple. It's sort of a 17th-century taste. Some like it and some don't. I do. Moderately juicy medium-sized greenish fruit, often marked by a suture line running from top to bottom and sometimes with a bit of a blush. Long-lived heavy-bearing medium-sized vigorous tree. Still quite common in small old central-Maine farm orchards. Z4-6. **ME Grown.**

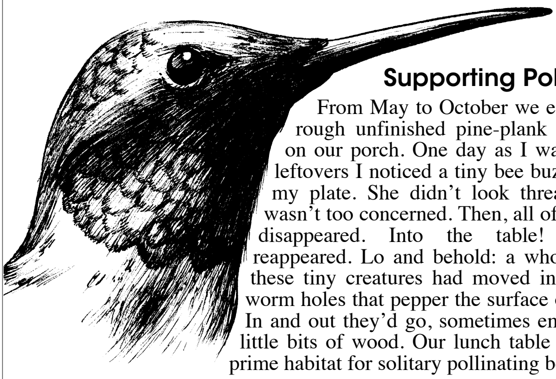
152A Tolman Sweet, $25.25

Fruit growing websites

Whether you use organic or conventional orchard practices, several websites can provide you with a great deal of information about insect and disease pressure, spray timing, frost predictions and a whole lot more. Here are a few of the best:

<http://umaine.edu/ipm/programs/apple/> (or search for "Maine apple IPM")
<http://www.fruit.cornell.edu/> Cornell University
<http://orchard.uvm.edu/> Vermont
<http://www.groworganicapples.com> Organic Orcharding





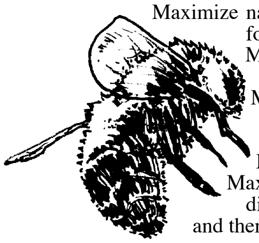
Supporting Pollinators

From May to October we eat lunch at a rough unfinished pine-plank dining table on our porch. One day as I was eating my leftovers I noticed a tiny bee buzzing around my plate. She didn't look threatening so I wasn't too concerned. Then, all of sudden, she disappeared. Into the table! Then she reappeared. Lo and behold: a whole bunch of these tiny creatures had moved into the small worm holes that pepper the surface of the plank. In and out they'd go, sometimes emerging with little bits of wood. Our lunch table had become prime habitat for solitary pollinating bees.

The honey bee (*Apis mellifera*) is facing great challenges these days. Native pollinators such as Mining (*Andrena*), Mason (*Osmia*) and Plaster (*Colletes*) bees are playing an increasingly important role in the orchard. But they can't live on apple blossoms (or pine bits) alone! You don't need to set out old plank tables, but you can purchase or construct "mason bee" houses. And you can populate your gardens and orchard with successional food sources to entice them to stick around year after year.

We have been cultivating an assortment of plants in our orchard to feed all these pollinators. In some instances, this means setting out plants or sowing seed. In other cases, it simply means leaving the native plants alone and allowing them to thrive. In other words, hold that scythe and lawn mower. Resist the temptation to make your orchard look like a golf course. Let Nature do its thing.

Guidelines for the best pollinator habitat



Maximize native plants: That's what the bees are looking for. Most of the plants listed below are natives.

Maximize species: Three or more species all blooming at once.

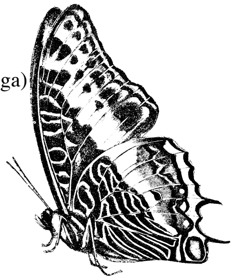
Maximize color: Three or more colors blooming at once. Blue, purple, white and yellow are the best.

Maximize variety: Lots of flower shapes.

Maximize clump size: Create masses at least 4' in diameter rather than the odd lonely plant here and there.

Selected Plants for Feeding Your Pollinators

Native Bees, Wasps, Moths, Flies, etc.



Angelica - Angelica archangelica
Amelanchier spp.
Anise Hyssop - Agastache foeniculum
Aster- Symphyotrichum spp.
Black Cohosh - Actaea racemosa (a.k.a. Cimicifuga)
Boneset - Eupatorium perfoliatum
California Poppy - Eschscholzia californica
Culver's Root - Veronicastrum virginicum
Dogwood - Cornus spp.
Eastern Redbud - Cercis canadensis
Hyssop -Hyssopus officinalis
Linden - Tilia americana
Summersweet - Clethra alnifolia

Honeybees

Buckwheat - Fagopyrum spp.
Chestnut - Castanea spp.
Crabapple - Malus spp.
Dandelion- Taraxacum officinalis
Elderberry - Sambucus spp.
Elm - Ulmus spp.
Hawthorn - Crataegus spp.
Honeylocust - Gleditsia triacanthos
Mockorange - Philadelphus spp.
Persimmon - Diospyros spp.
Poppy - Papaver spp.
Mountain Ash - Sorbus spp.
Spiraea spp.
Viburnum spp.
Witch Hazel - Hamemelis spp.

Bumblebees

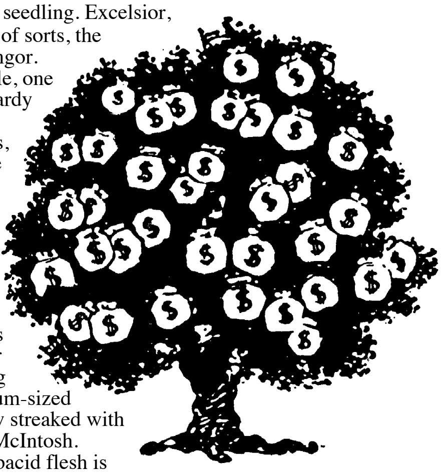
Blueberry - Vaccinium spp.
Blue Vervain - Verbena hastata
Clover - Trifolium spp.
Figwort - Scrophularia nodosa
Goldenrod - Solidago spp.
Lavender - Lavandula spp.
Wild Lupine - Lupinus perennis
Willow - Salix spp.

Butterflies

Butterfly Bush - Buddleia davidii
Dill - Anethum graveolens
Dutchman's Pipe - Aristolochia durior
Echinacea spp.
Gayfeather - Liatris spp.
Hardhack - Spiraea douglasii
Hawthorn - Crataegus spp.
Joe Pye Weed - Eupatorium spp.
Mexican Sunflower - Tithonia rotundifolia
Milkweed - Asclepias syriaca
Pleurisy Root - Asclepias tuberosa
Queen Anne's Lace - Daucus carota

Hummingbirds

Bee Balm - Monarda spp.
Chinese Red Sage - Salvia miltiorrhiza
Lobelia spp.
Native Honeysuckle - Lonicera sempervirens
Native Jewelweed - Impatiens capensis
Trumpet Vine - Campsis radicans
Weigela florida



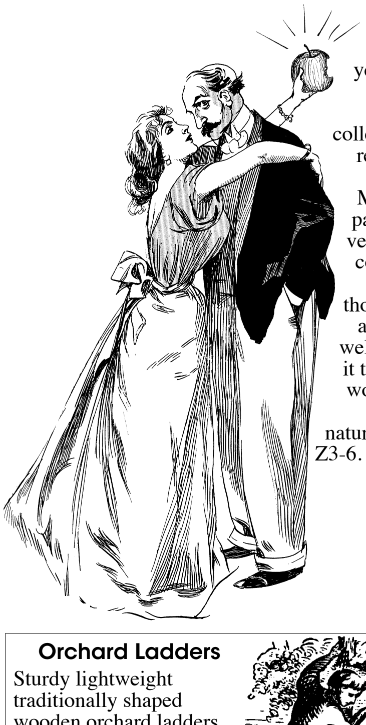
Wealthy Fall. Cherry crab seedling. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. Superb all-purpose fall apple, one of the most famous of all hardy varieties. With its perfect texture and complex flavors, Wealthy is considered to be one of *the* best apples. I agree. Our 98-year-old friend, orchardist Francis Fenton, believes Wealthy—not McIntosh—deserves to be the favorite commercial apple of northern New England. The trees his father planted in Mercer 104 years ago are still going strong. Round-oblate medium-sized fruit is pale greenish-yellow streaked with carmine. About as firm as McIntosh. Tender very juicy sweet subacid flesh is white, often stained red. Good eating and even better cooking. Wonderful pies! Good acid source for fermented cider. Ripens over a long period. Productive moderately vigorous long-lived small- to medium-sized tree. Blooms early. Z3-4. **ME Grown**.

153A Wealthy, $25.25

Williams Pride Summer. Co-op 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Co-op, 1988. Probably the most popular summer apple among the newly developed disease-resistant introductions. It's actually crisp, which is rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit, highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh, with red staining just under the skin, is firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well-shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch; resistant to powdery mildew. Scab immune. Blooms early-midseason. Z4-7. Both are **ME Grown**.

154A Williams Pride, $25.25

154C Williams Pride on M111 rootstock, $27.25 (2-4')



Winekist Summer. Unknown parentage. Carl A Hansen intro, Brookings, SD, 1949. For many years I assumed that this red-fleshed apple was the creation of the Winthrop, ME, fruit explorer and collector, Morris Towle. Dan Bussey's research has straightened that out. It really comes from South Dakota. Medium-sized fruit is wine red with patches and stripes of darker red and very small white dots. The very juicy coarse flesh is almost solid beet red: a real eye popper! Very good—though extremely tart—flavor, makes a great addition to cider or sauce, as well as fresh eating for those who like it tart. Leaves are tomentose (soft and woolly) and have a dark reddish cast. Blossoms are light pink. Tree is a natural semi-dwarf. Blooms midseason. Z3-6. **ME Grown**.

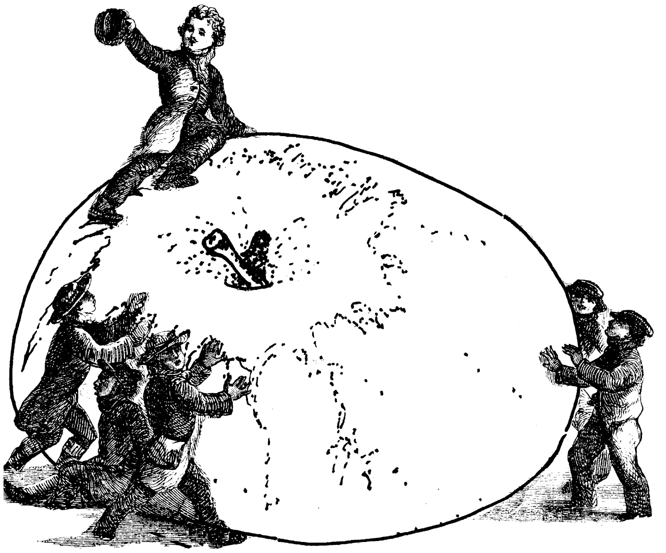
155A Winekist, $25.25

ME Grown = grown in Maine by a member of the Fedco growers coop.

Orchard Ladders

Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement.

Contact the manufacturer:
Peter Baldwin
207-722-3654
baldwin@acadia.net

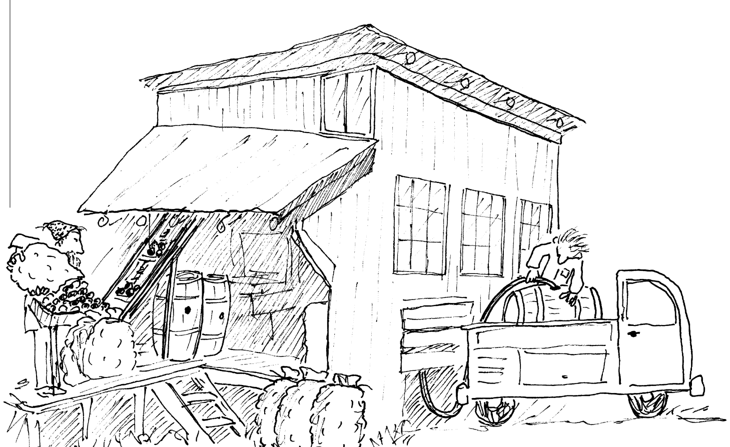


Wolf River Fall. Alexander seedling. Near Wolf River, WI, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. Grower Dan Kennedy's favorite apple. Pale yellow-green skin mostly covered with pink, deep red and bright crimson. Almost always has a vivid yellowish-greenish russety splash around the stem. Creamy-white coarse firm-but-tender flesh. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season Z3-5. **ME Grown**.

156A Wolf River, $25.25

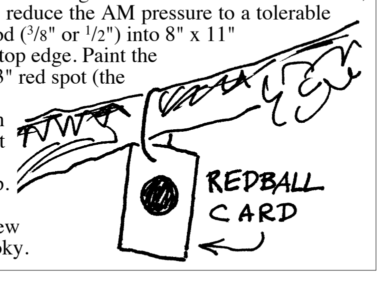
Yarlington Mill Fall. Medium-bittersweet cider apple. Yarlington, near North Cadbury, Somerset, England, 1898. Once common in farm orchards of central Somerset. Steve Wood's other favorite bittersweet. Medium-sized yellow conical fruit with a pinkish blush and over-spreading darker red stripes. Considered an all-round excellent variety: reliable, productive and adaptable to varying conditions. Rich brown low-acid mild lovely aromatic fruity cider, not aggressively tannic. Above-average sugar content. Slow to medium fermentation. You may need to head back the leader in early years to encourage strong laterals. Midseason bloomer. Z4-6. **ME Grown**.

157A Yarlington Mill cider apple, $25.25



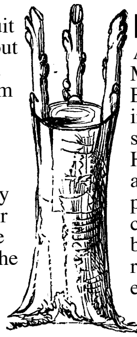
Apple Maggot and plywood

Maine grower Don Johnson has been making nifty apple maggot traps for the past few years. We've gotten into doing so ourselves. In small orchards, the traps alone may be enough to reduce the AM pressure to a tolerable level. Here's how: Cut up plywood ($^{3}/_{8}$" or $^{1}/_{2}$") into 8" x 11" rectangles. Drill a hole along the top edge. Paint the plywood bright yellow with a 2–3" red spot (the apple) in the center. Coat with Tangletrap and hang three in each tree, positioning the traps at about chest height. Trim away any foliage that might stick to the trap. Check for AM flies. Scrape the traps off now and then and add new Tangletrap when they get too gooky.



Scionwood

We offer scionwood from a wide selection of fruit trees including many listed in this catalog. Price is $4.00 per stick (about 8") plus shipping. To order scionwood or rootstock for early shipment, send us a SASE requesting a scionwood order form or download it from the Fedco Trees website. Deadline for ordering scionwood is February 21, 2014. We will ship around March 19.



Hardy Rootstocks

We consider these to be some of the best rootstocks for home or commercial use. Even without grafting, any of these produces fruit suitable for wildlife. For rootstocks not listed, or for larger calipers or larger quantities, please write for information. We also offer grafting supplies in the Organic Growers Supply section of the Seed catalog or online at **fedcoseeds.com**.

Please note! We do our best to provide 1/4" caliper stock. Because of factors beyond our control (such as weather!) stock may be 3/16–3/8".

Because of the way they are propagated, clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear) rarely come with more than a few roots. We recommend planting clonal rootstocks for a year in your garden or nursery before grafting them.

You may order rootstock for shipment around March 19 by using the scionwood order form—download it from our website or request it with a SASE. Rootstock ordered online or on the order form in this catalog will be shipped with the rest of the Tree order in April.

Please join us Sunday, March 30, 2014, at the Maine Tree Crop Alliance annual Scionwood Exchange and grafting workshop in the exhibition hall of MOFGA's Common Ground Education Center in Unity. MOFGA also offers a full range of organic orcharding classes; see mofga.org for details.

***Malus* ‘Antonovka’** (Apple) Hardy Russian seedling rootstock for full-sized "standard" apple trees. Space trees 20–30' apart. Z3-5.

160A Malus Antonovka, bundle of 10 for $27.00

***Malus* ‘Budagovsky 118’** (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called **Bud 118** or **B118**. Semi-dwarf rootstock, similar in size to M111 (about 85–90% of standard). Sometimes referred to as a "semi-standard" or even a standard. Space trees 20–25' apart. More productive than Antonovka, similiar to M111 in that respect. Not considered precocious, but may fruit sooner than trees on Antonovka. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Resistant to collar rot. Unknown susceptibility to fireblight. Z3.

161A Malus Budagovsky 118, bundle of 10 for $27.00

***Malus* ‘M111’** (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative introduction of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. Space trees 15–20' apart. No staking necessary. Fruits at a slightly younger age than standards. Well-anchored and adaptable to a wide range of soils. Woolly-aphid resistant. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3.

162A Malus M111, bundle of 10 for $27.00

***Malus* ‘Geneva 11’** (Apple) Also called **G11**. Cornell University introduction, NY. Dwarf rootstock produces a tree about a third the size of standard, about halfway between M9 and M26 (a bit larger than Bud 9). Space trees 8–10' apart. Suckers only slightly. Moderately susceptible to woolly aphid. Excellent fireblight resistance. Requires staking, weeding and watering in most locations. Z4?

163A Malus Geneva 11 Dwarf, bundle of 10 for $31.00

***Malus* ‘Budagovsky 9’** (Apple) [M8 x Red Standard (Krasnij Standart)] Also called **Red-leafed Paradise** or **Bud 9**. Michurinsk College of Ag, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree about a quarter the size of a standard tree. Highly productive and precocious with high levels of soluble solids and large fruit size. Very hardy though not as hardy as Antonovka. In most locations, requires weeding, mulching, staking and irrigation. Space trees 5–10' apart. Some resistance to fireblight. Z4.

164A Malus Budagovsky 9, bundle of 10 for $27.00

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 25.) Z3.

165A Prunus americana, bundle of 10 for $27.00

***Prunus avium* ‘Mazzard’** (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Maheleb though not as hardy. Does not do well in heavy poorly drained soils. Z4/5.

166A Prunus avium Mazzard, bundle of 10 for $27.00

***Prunus cerasifera* ‘Myrobalan’** (Plum) Seedling rootstock for European plums. Not recommended for American or hybrid plums. Z3.

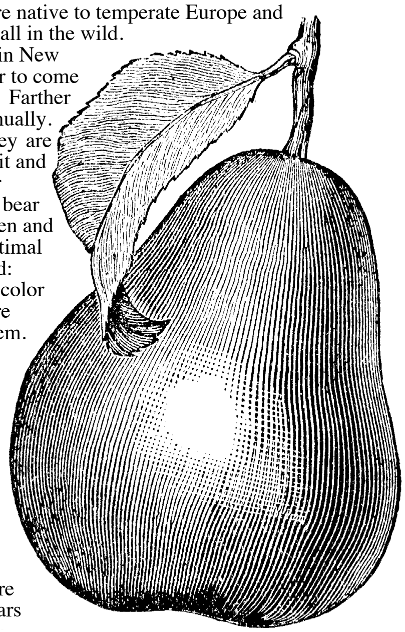
167A Prunus cerisifera Myrobalan, bundle of 10 for $27.00

***Pyrus* ‘Old Home x Farmingdale 97’** (Pear) (Old Home x Farmingdale) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways. We use "97s" for our Fedco catalog offerings except where noted. Z3/4.

168A Pyrus OHxF97, bundle of 10 for $27.00

Pears

Pyrus communis are native to temperate Europe and Asia and can grow up to 100' tall in the wild. Many pear varieties are hardy in New England but tend to take longer to come into bearing than apples. Farther south, pears tend to bear annually. However, in Maine, where they are approaching their northern limit and perhaps because of our harsher climate, some varieties tend to bear biennially. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try Ed Fackler's method: "…when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2–4 days which allows them to ripen to peak flavor."



Pear blossoms are less attractive to bees than apple blossoms, so pears should be planted closer together to ensure pollination. Although some pears appear to be self-pollinating, **we recommend a second variety for pollination**. Bloom dates for all varieties are similar.

This year some of our pears are on OHxF 333, a semi-dwarfing rootstock whose trees reach about 15' at maturity. Plant semi-dwarfs 10–15' apart. If not otherwise noted, pears are on OHxF 97 and will reach approximately 25' at maturity; plant those 15–20' apart. (3-6' trees)

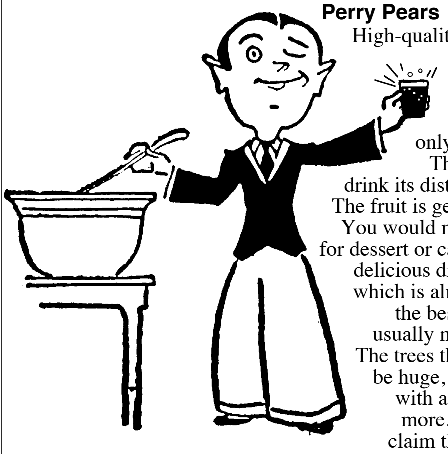
Bartlett Late Summer. (Williams' Bon Chrétien) Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Most widely planted and well known of all pears, accounting for 75% of the U.S. commercial crop. Adaptable to many climates and soils. Large greenish-yellow classic oblong obtuse-pyriform fruit; very good quality. Full reliable annual crops. Large vigorous easy-to-grow long-lived tree bears young. I used to think you couldn't grow Bartlett in central Maine, but I've changed my mind. Now I recommend it as a good choice south of Bangor. Susceptible to fireblight, though that won't be up here until global warming catches up with us. Good pollinator for Asian Pears. **Will not pollinate Seckel.** Z4.

169A Bartlett, $25.00

Bosc Fall. Seedling in Lourain, Belgium, 1807. Also called **Beurre Bosc**. Oblong acute-pyriform, or large and long-necked; dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Good pollinator. Large vigorous upright spreading tree bears huge crops annually. A longtime favorite throughout central Maine. Z4.

170A Bosc, $25.00

Perry Pears



High-quality fermented "cider" can be made from pears, traditionally called "perry" in parts of England. Perry is made only from specific varieties. These perry pears give the drink its distinctive body and flavor. The fruit is generally small and bitter. You would never want to grow them for dessert or canning. But they make a delicious drink. Unlike apple cider, which is almost always blended for the best flavor profile, perry is usually made as a single varietal. The trees themselves often grow to be huge, sometimes 60 or 70' tall with a lifespan of 300 years or more. Perry aficionados often claim that the only real perry is made within sight of May Hill in Gloucestershire, England, not far from Ross-on-Wye (and Avalon). When we were there a couple of years ago, we sampled a lot of perry within sight of May Hill. We were pleased. Although definitely not within sight of May Hill, we can grow these perry pears here in the States and produce a very drinkable product. This year we are offering some of England's most famous varieties. We'll be offering more each year.

Brandy Fall. Medium-sharp perry pear. Southwest England, about 1820. Too bitter for fresh eating but very good for making a strong aromatic perry (fermented pear "cider"). Also suitable for cooking. Medium acidity, low tannin. (SG 1.069) Small roundish-pyriform yellowish fruit with a reddish blush. Brandy was one of the pears used by James Marsden and Helen Woodman in the delicious perry we drank at their Gregg's Pit Orchard in Herefordshire. Their press had a large flat grooved stone base that looked to be about 300 years old. It probably was. Annual or tending to biennial. Medium-small spreading tree. Probably Zone 4 or 5. **ME Grown.**

171A Brandy perry pear, $25.00

Butt Late Fall. Bittersharp perry pear. Southwest England, very old. Also called **Norton Butt**. Too bitter for fresh eating but very good for making perry. Also suitable for cooking. Medium-high in acid, high in tannin. (SG 1.056) Small obovate obtuse-pyriform yellowy fruit. Also grown at Gregg's Pit and other perry pear orchards in southwest England. Noted as one of the best perry pears by Dr. Robert Hogg in his famous fruit manual of 1884. Keeps very well. Pick in the late fall and press it in winter when you have the time. Heavy biennial crops. Medium-large upright tree. Probably Z4 or Z5. **ME Grown.**

172A Butt perry pear, $25.00

Cabot Vermont Fall. An old dessert pear discovered in Cabot, VT, a few miles west of the New Hampshire border and about as far north as Bangor, ME. Introduced to us many years ago by Armando Bona of Passumpsic, VT. Not to be confused with the old Massachusetts pear Cabot. A superior dessert pear with medium-large oblong obovate-pyriform fruit. Yellowish skin has a slight reddish blush. Yellowish sweet flesh is coarse grained, extremely juicy, with no grit cells. Not only is it a delicious dessert fruit, it is also remarkable for its very rare "double" flowers. Highly ornamental! Annual and self-pollinating. Very hardy. Z4 or possibly even Z3. **ME Grown.**

173A Cabot Vermont, $25.00

Comptesse Clara Frijs Late Summer. Denmark, 19th c. Very old delectable dessert pear, first described in 1858 by JA Bentzien in the Danish garden journal *Dansk Haugetidende* and thought to be from the village of Skensved. Medium-sized yellowy-green oblong obovate-pyriform rather thick-skinned fruit sometimes with a very slight pink blush—like a spot of rouge. The buttery aromatic flesh is firm but not crisp with no grit cells. Juicy but not dripping. You can eat it in the car. You can eat it right down to nothing. Keeps for a month. Solid rugged hardy tree. Z4. **ME Grown.**

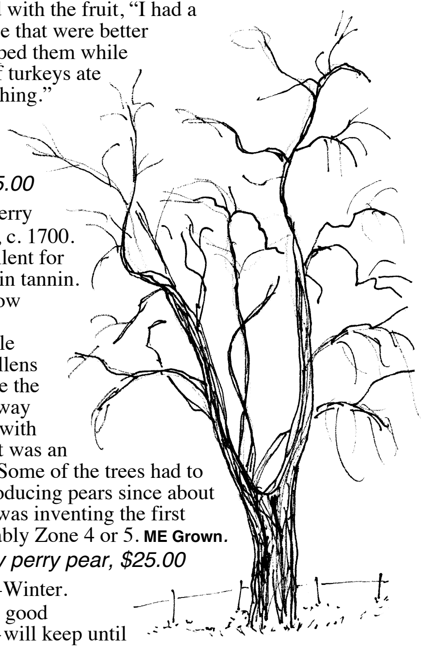
174A Comptesse Clara Frijs, $25.00

Endicott Fall. Dessert and perry pear. Orchard Farm, Naumkeag, MA, c. 1630. The incredible 380-year-old Endicott pear tree has the distinction of being probably the oldest living fruit tree in America. Medium-sized roundish fruit (obovate obtuse-pyriform) is greenish yellow, dotted and splashed with russet. While not the most delicious fruit, I thought it tasted quite good when I sampled it. James Thacher in his 1825 *The American Orchardist* adds, "From the pear is prepared a pleasant liquor, known under the name of perry..." Planted from seed in either 1630 or 1632 by Puritan John Endicott, the first Colonial Governor of Massachusetts. Endicott was an avid gardener who grew hundreds of fruit trees on his 300-acre Orchard Farm in what is now Danvers. The ancient gnarled and twisted tree is now all that remains. Z4/5. **ME Grown.**

175A Endicott, $25.00

Gorham Early Fall. Bartlett x Josephine de Malines. New York Stn, Geneva, NY, 1923. Dessert pear of excellent fruit quality. Smooth, dense, juicy and sweet. Large yellow fruit, often partly or entirely russetted. Resembles Bartlett in size and shape. Ripens a week or two later than Bartlett. Stores well. Introduced to us by Fedco grower John Meader who added in the note he included with the fruit, "I had a dozen or so high up in the tree that were better specimens but the wind dropped them while I was unaware, and a flock of turkeys ate the drops—it's always something." Upright vigorous productive (tall!) tree. Quite hardy. Z3-4. **ME Grown.**

176A Gorham, $25.00



Hellens Early Early Fall. Perry pear. Much Marcle, England, c. 1700. Not for fresh eating but excellent for perry. Medium acid and low in tannin. (SG 1.045) Small bright yellow obovate-pyriform fruit. (Roundish-oval with very little neck.) In 2011 we visited Hellens Manor in Much Marcle where the variety originated. The driveway leading up the estate is lined with perry trees planted in 1710. It was an almost religious experience. Some of the trees had to be 60' tall. They had been producing pears since about the time the *first* Jethro Tull was inventing the first horse-drawn seed drill. Probably Zone 4 or 5. **ME Grown.**

177A Hellens Early perry pear, $25.00

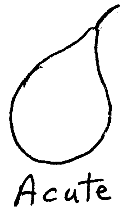
Kaspar's Winter Late Fall-Winter. Frankendorf, Germany. Very good tough-skinned storage pear—will keep until April in the root cellar. Very hard off the tree; don't begin to eat them until a month after picking. Coarse flesh with a good flavor. Greenish-mottled medium-small pyriform fruit with some russet splashes or dots. Years ago this nameless winter pear found its way from the roadside near Frankendorf to Unity, ME. The name came later, courtesy of grower Howard Wulf who calls it "the latest-keeping pear I've ever seen." Sturdy adaptable hardy precocious tree. Highly recommended for those who want pears after New Year. Z4. **ME Grown.**

178A Kaspar's Winter, $25.00

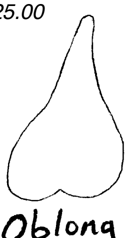
Luscious Early Fall. SD E31 x Ewart. SD State U, 1967. One of the few recent pear introductions that deserves a place in the home orchard. Produces annual crops of delicious medium-sized oblong obovate-pyriform fruit. Bears so heavily that it's apt to break branches. The soft fine extra-juicy off-white flesh is sweet and flavorful with almost no grit cells. Thin yellowish skin is covered with small tan dots. Anecdotal evidence suggests that it may crop best when grown near Bartlett or one of the Asian pears. Although some literature warns that Luscious itself is a poor pollinator, we've been happy to have it at our place. Z3.

179E Luscious on OHxF333 rootstock, $25.00

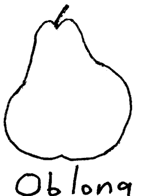
ME Grown = grown in Maine by a member of the Fedco growers coop.



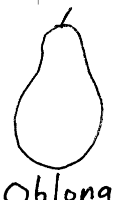
Acute
Pyriform



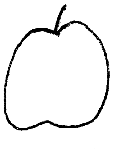
Oblong
Acute
Pyriform



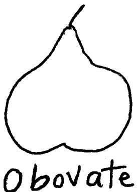
Oblong
Obovate
Pyriform



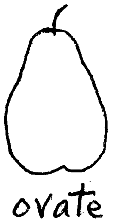
Oblong
Obtuse
Pyriform



Obovate



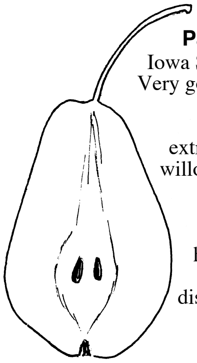
Obovate
Acute
Pyriform



ovate
Pyriform

Nova Late Summer. Hammond, NY. Discovered and introduced by Bill MacKentley of St Lawrence Nurseries, Potsdam, NY. Large yellow roundish dessert pear with melting juicy flesh. Chris Blanchard's favorite pear. For decades he and Liz Lauer have been trialing a wide assortment of pears a few hours north of here in Penobscot County. He described it to me as "large with smooth creamy texture and a thin skin. Wonderful dessert pear. Also the best canning of our 12–14 varieties." Holds its shape in the jar. Very hardy, though from our trials in northern Aroostook County, not quite as hardy as Patten. Appears to be fireblight- and scab-free. Z3. **ME Grown**.

180A Nova Pear, $25.00

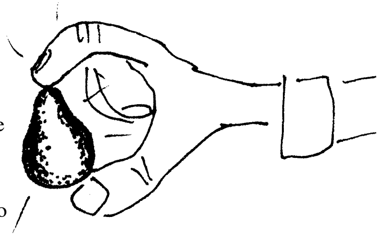


Patten Late Summer. Orel 15 x Anjou. CG Patten intro, Iowa St U, 1922. The best-quality large hardy pear available. Very good fresh eating with sweet "high flavor." Fine-grained soft flesh has minimal grit cells. Vaguely reminiscent of Bosc in size and shape. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy branches very flexible, won't break even under the weight of its heavy crops. Scab resistant. A good pollinator for other varieties. Fared incredibly well during the cold "test winter" several years ago when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. Z3.

181A Patten, $25.00 **ME Grown**.

181E Patten on OHxF333 rootstock, $25.00

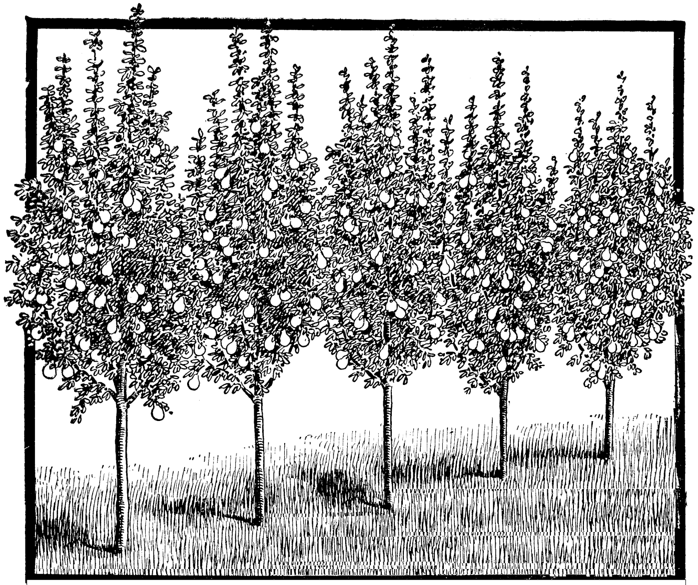
Seckel Late Summer. Seedling near Philadelphia, PA, early 1800s. Sometimes called **Sugar Pear**. Often considered the best-flavored of all pears; even the skin is delicious. Small obovate fruit is yellowish-brown russeted with slight red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree or pick firm and ripen later. We use Seckels to make our baked "pear-sauce." It's wonderful. Very productive annual-bearing large tree, easy to grow. *The* most reliably bearing fruit tree we have. Scab- and fireblight-resistant. **Will not pollinate Bartlett.** Z4.



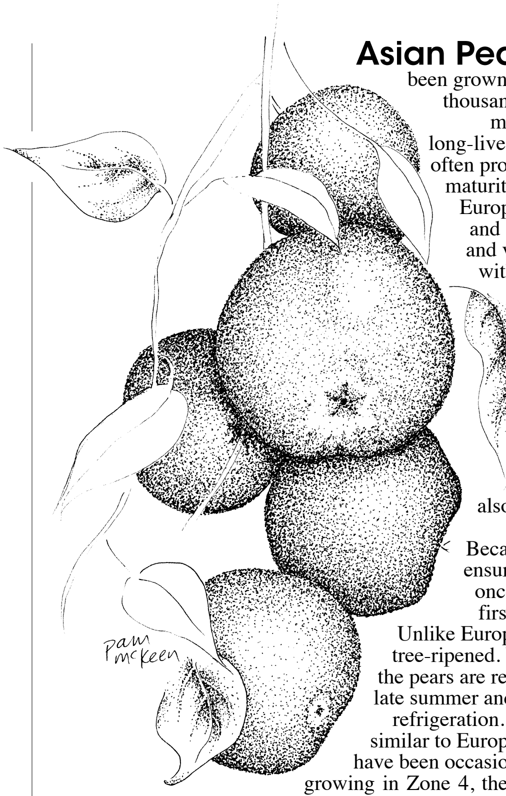
182A Seckel, $25.00

Summercrisp Midsummer. MN N33201 (Gaspard No. 5), unknown parentage. U Minn, 1986. Brought to the Minnesota Horticultural Research Station by John Gaspard in 1933. Large obovate acute-pyriform very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh crisp, can them in quarters, and juice the rest. Precocious, annually bearing tree, medium-sized with typically conic habit. Considered the hardiest variety in the Minnesota collection. Free from fireblight. Z3.

183E Summercrisp on OHxF333 rootstock, $25.00



Pears are generally easy to grow in New England. One challenge growers sometimes face is **pear leaf blister mites**. The microscopic mites live in the leaf tissue and overwinter in the buds. You know you've got them if your pear leaves are disfigured by small green-yellow-brown or pink blistery bumps. You'll see them if you have them. Two organic controls are an oil and lime sulfur spray in Oct.–Nov. and a dormant oil spray in the spring just before the buds open.



Asian Pears

Pyrus pyrifolia have been grown in China, where there are thousands of named cultivars, for more than 2000 years. Very long-lived and bearing young, they often produce extremely heavily at maturity. Asian pears differ from European pears in texture, taste and appearance: they are crisp and very juicy, sweet and mild with a nutty background, and are roundish in shape. **Although partly self-fruitful, pollinators are recommended.** The varieties we offer will pollinate one another. Some European pears, notably Bartlett, will also act as pollinators as long as bloom times overlap. Because they set so heavily, to ensure large fruit, thin the crop once or even twice during the first two months after bloom. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready to pick. They ripen in late summer and keep several weeks with refrigeration. Cultural requirements are similar to European pears. Although there have been occasional reports of Asian pears growing in Zone 4, they should be considered a Zone 5 plant. (3-6' trees)

Hosui Late Summer. [Ri-14 (Kikusui x Yakumo) x Yakumo] National Horticultural Research Station, Tsukuba, Japan, 1972. Standard commercial variety. Large round-oblate long-stemmed fruit with medium-thick skin covered with glowing yellow-orange-golden brown russet and numerous light-russet dots. Firm crisp fine-textured juicy mild subacid yet sweet rich-flavored white to off-white flesh is considered by some to be the best-flavored of all Asian pears. Will store for a month. *Hosui* literally means 'much water.' Medium-sized very vigorous spreading productive tree has a floppy loose somewhat weeping growth habit. We staked our tree and it still wants to weep. Susceptible to fireblight. Z5.

184A Hosui, $25.00

Kosui Late Summer. Kikusui x Wasekozo. Natl Hort Res Stn, Tsukuba, Japan, 1959. Crisp, juicy and very sweet. Medium-sized fruit is mostly covered with yellow-golden-brown russet. Early ripening, two weeks before Hosui and Chojuro and keeps for about two months. *Kosui* means 'good water.' Medium-sized vigorous spreading tree. Some resistance to scab. Z4/5.

185A Kosui, $25.00

Shinko Fall. Nijisseiki seedling, Japan, 1941. *Shinko* means 'new success' in Japanese. Medium-large lumpy round brownish russeted fruit. Yellowish flesh is sweet, crisp and juicy, with very good flavor. Moderately vigorous precocious annually bearing tree. Fireblight resistant. In addition to the other Asian pears, Bartlett is also a good pollinator for Shinko. Ripens late and stores up to three months. Z5.

186A Shinko, $25.00

Shinsui Summer. Kikusi x Kimizukawase. Hort Research Stn, Yatabe, Japan, 1967. Medium-sized round-oblate yellowish-brown russetted fruit with crisp juicy fine-textured very sweet flesh. Excellent fresh eating. Not as firm as other Asians. One of the earliest to ripen each year. Pennsylvania grower and Asian pear aficionado Ike Kirschner considers this a great pear. Keeps about 6 weeks in refrigeration. *Shinsui* is translated as 'new water,' 'adoration,' 'inundation' and more. It is also the pseudonym of one of Japan's most famous 20th-century artists, Ito Shinsui (1888-1972). Even if you don't know his name, you will almost certainly recognize his iconic colorful prints of young women. Z5/6.

187A Shinsui, $25.00

Yoinashi Fall. Fowler Nurseries intro, Newcastle, CA, about 1987. Large conic light-brown russeted fruit. Fine-textured off-white flesh is crisp, juicy, aromatic and sweet. Means 'good pear' in Japanese. It is a good variety! When I talked to one of the folks at Fowler Nurseries, she described it as having "a little bit of a zip" to it. Harvest after Hosui and before Shinko. Upright medium-vigorous tree. Good pollinators include other Asian pears and Seckel. Moderate tolerance to fireblight. Z5.

188A Yoinashi, $25.00

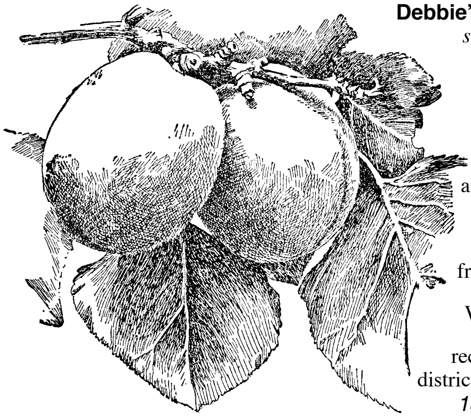
Stone Fruits

Prunus spp. are widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. **Clingstone** means the fruit's flesh clings to the pit (or stone) and a **freestone** pit drops away from the flesh.

Apricots

P. armeniaca are native to central Asia, cultivated there for about 4000 years. Downeast (coastal) Maine apricot grower and good friend Richard "Ozzie" Ossolinski wrote, "From what I saw during a recent road trip through the Stans, apricot 'orchards' hardly seem necessary....Wild trees are as prevalent there as spruces are here in Maine. Even in the most rugged mountain terrain apricot trees seem to have established themselves wherever a few teaspoons of soil exist near a trickle of water: really pretty amazing." The trees are only marginally adaptable to northern New England. Because their early blossoms are sensitive to cold spring weather, they are often planted with northern exposures to delay blooming. Large crops are possible but uncommon in Maine. The zone rating should be viewed as an approximation because much depends on your site. We are on the lookout for reports of hardy trees in Maine and other northern locations. Please let us know if you've had success.

Plant 15–20' apart. **Self-pollinating**. (3-6' trees)



Debbie's Gold Summer. *P. a. sibirica* seedling. Aubin Nurseries, Carman, Manitoba, about 1980. Pale orange-yellow slightly flattened small fruit. Annual bearer. Similar to Westcot but a bit sweeeter. Vigorous somewhat upright and moderately productive tree. Blooms later and fruits later than Westcot. While not as hardy as Westcot, still extremely hardy and highly recommended for coldest districts. Probably Z3.

189A Debbie's Gold, $25.00

Hargrand Midsummer. HW410 (V51092 x NJA #1) Richard Layne intro, Harrow Station, Ontario, 1980. Very large (2" or more) dull-orange fruit with a speckled blush. Freestone. Outstanding flavor. Firm orange flesh. Open spreading productive tree. Recommended for warmer areas. Don't grow the super-hardy apricots if you can grow Hargrand or Harogem. Disease tolerant. Z4/5.

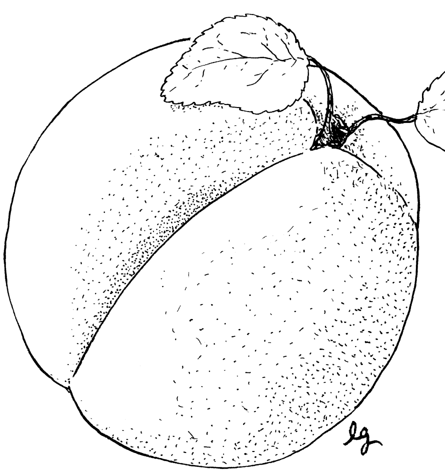
190A Hargrand, $25.00

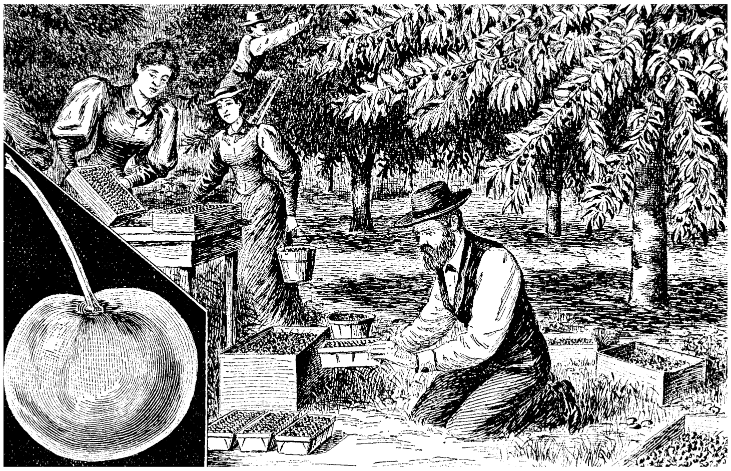
Harogem Midsummer. HW405 [Rouge du Roussillon x NJA2 (Morden 604 x open-pollinated)] Harrow Station, Ontario, 1979. Small-medium bright orange ovate fruit with a glossy red blush. Very firm moderately juicy freestone flesh has good flavor. Spreading productive tree with medium vigor and good disease resistance to brown rot and perennial canker. Somewhat resistant to bacterial spot. May be hardy in tropical areas of Zone 4. Z4/5.

191A Harogem, $25.00

Westcot Summer. Scout x McClure. Introduced by Les Kerr, Agriculture Canada, Morden, Manitoba, Canada, 1982. Small roundish fruit, yellow-orange with a red blush. Smooth juicy freestone flesh with a mild sweet flavor. Firmer than Debbie's Gold. Vigorous upright spreading productive tree. Blooms a day earlier and fruits before Debbie's Gold. Probably hardiest of the apricots we're offering this year. Pits also the largest! Z3.

192A Westcot, $25.00



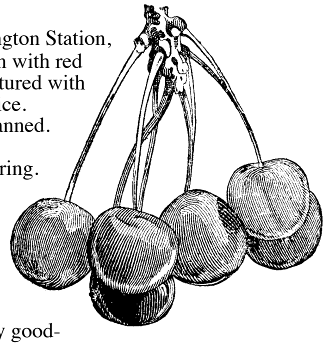


Sweet Cherries

P. avium are generally not hardy in Maine. Most grow into very large trees. We are currently testing some of the hardiest varieties and hope to have more of them available in upcoming years. **See descriptions for pollination requirements.** (3-6' trees)

BlackGold Summer. NY 13791 (Stark Gold x Stella) NY Station, 2001. Also known as **Ridgewood**. One of two very new and highly admired sweet cherries, the other being WhiteGold (below). Large beautiful glossy dark red heart-shaped sweet fruit of very high quality. Late blooming. Upright spreading growth habit. Much more adapted to eastern U.S. conditions than Bing cherry and other "western cherries." Very hardy. Survived –33° in SW Minnesota. Self-pollinating. Disease and crack resistance. Z4.

193A BlackGold, $25.00



Rainier Summer. Bing x Van. Washington Station, 1960. Very large fruit, light yellow skin with red blush. Clear flesh is very firm, fine-textured with a distinct delicious flavor. Colorless juice. Similar to Royal Ann. Good fresh or canned. Quite resistant to cracking. Vigorous productive tree. Early to come into bearing. Needs another variety for pollination. Ripens in mid-July. Z5.

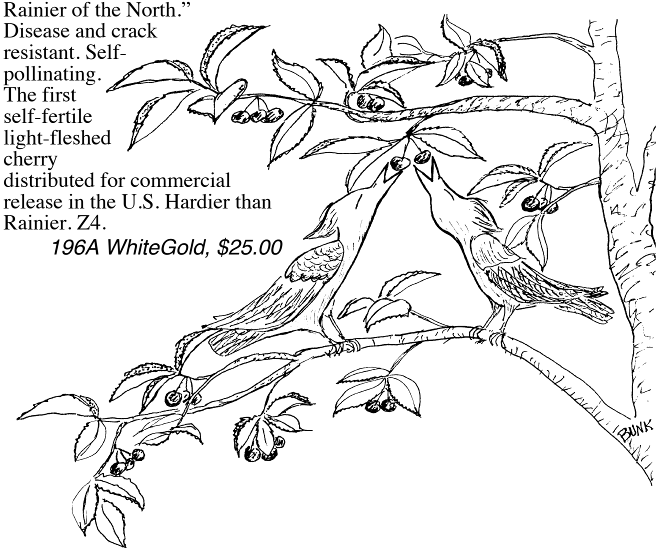
194A Rainier, $25.00

Stella Midsummer. 2C-27-19 (Lambert x John Innes Sdlg. 2420) Canadian Dept of Ag Research Stn, Summerland, BC, 1968. The first hardy good-quality self-fertile sweet cherry. Large heart-shaped black-skinned fruit has juicy medium-firm black flesh. May be a disappointment to sweet cherry aficionados from the Northwest but could be like a dream come true for orchardists living in the North. Although the fruit buds are relatively tender, we've received encouraging reports that the tree is doing well in Minnesota. Upright spreading vigorous productive tree will grow to 25–30'. Self-pollinating, also pollinates other sweet cherries. Z4.

195A Stella, $25.00

WhiteGold Summer. NY 13688 (Emperor Francis x Stella) NY Station, 2001. Also known as **Newfane**. New from the breeding program in Geneva, NY, and highly admired. Light red-yellow fruit with good size, great flavor and heavy cropping. Sweet light-colored flesh. Bob Purvis called it "The Rainier of the North." Disease and crack resistant. Self-pollinating. The first self-fertile light-fleshed cherry distributed for commercial release in the U.S. Hardier than Rainier. Z4.

196A WhiteGold, $25.00



Pie Cherries

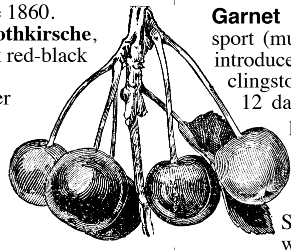
P. cerasus are called "sour," but they're delicious enough to eat right off the tree. They fruit in early to midsummer and don't mind heavy soil. They are especially good in pies. They are generally divided into two groups: **Morello** types have dark red spherical fruit, dark juice and relatively small compact trees. **Montmorency** (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are significantly hardier than sweet cherries but can be frustrating to grow. Although the trees are fully hardy in Zone 3, flower buds may be damaged in colder winters. Some growers in Maine have reported large harvests only to have their trees die unexpectedly a year or two later. We regularly hear reports of excellent crops, so we know it can be done. We are currently testing several promising varieties including some local heirloom discoveries. Our hope is to find pie cherries that will be consistently healthy and productive. We are very interested in your successes and failures. If you have had experiences you think might be useful to others, please be in touch. **Pie cherries are self-pollinating, and do not require another variety for pollination**. Plant 15-20' apart. (3-6' trees)

For *P.* x *kerrasis*, Carmine Jewel and Crimson Passion dwarf sour cherries, see p. 49.

Early Richmond Summer. Probably seedling of Cerise Commune, England, before 1600. Could be the same as **Cerise de Volger** or **Cerisier Hâtif**. Also called **Flanders**, **Kentish** and **Flemish** in England and **Virginia May** and **Early May** in the U.S. Dark red, Armarelle (Montmorency) type fruit with pale yellow flesh and pinkish juice. Good culinary and dessert fruit when perfectly ripe. Recommended in particular for its very early ripening season and for its excellent dried fruit. Healthy tree is very soil- and climate-adaptable—from Canada to Carolina, Connecticut to California. May have originated in England or been brought there by the Dutch, or a lot earlier by the Romans. Acquired the name Early Richmond after arriving in Richmond, VA, sometime before 1820. The second most popular commercial pie cherry—after Montmorency—in New York state in the early 1900s. Z4/5.

197A Early Richmond, $25.00



English Morello Summer. Netherlands or Germany, before 1860. Sometimes called **Grosse Cerise a Ratafia**, **Grosse Lang Lothkirsche**, **Griotte du Nord**, **Morris** and **Colorado Morello**. Very dark red-black skin. Dark red flesh and juice. Excellent culinary cherry, recommended for pies and all other cookery. Ripens late, after Montmorency. Distinctive small roundish tree with drooping branches. Brown rot resistant. One of the most famous of all pie cherries. Despite the name we know it by, it is thought to have originated on the Continent, eventually finding its way to England and then to North America. Z4/5.

198A English Morello, $25.00

Evans Mid-Late Summer. Unknown parentage. Edmonton, Alberta, Canada. Also called **Bali**. Rescued from obscurity in 1976 by Dr. Ieuan Evans for whom it was named. Thought to have been brought to Alberta by early settlers from Minnesota. Known in the Edmonton area at least back to 1923 but only recently gaining widespread attention. Hardiness reports are inconsistent, but our own Aroostook County trials are proving it to be hardier than Meteor, Montmorency or North Star. Cropping and fruit-quality reports are also inconsistent. Some extremely positive and others not so. There is also debate about the differences between grafted trees and "own root" specimens usually started by tissue culture. We are now doing side-by-side trials in four Maine locations to see if we can sort that all out. Large crops of Morello-type fruit are possible and the fruit is considered to be excellent for eating, jams, jellies, pies, dark red juice and wine. Naturally dwarf tree, tolerant of a wide range of soils, although prefers light fertile soils. Z3.

199A Evans, $25.00

Garfield Plantation Summer. Unknown origin. Garfield Plantation, ME. Heirloom pie cherry grown for generations on an Aroostook County farm. One of our most promising finds in our search for varieties that really do produce. In the spring of '09 trees in northern Maine flowered and fruited after –44°. Although the original tree is long gone, it lives on in the form of innumerable young trees that have suckered up for 100 feet or more behind the farm along the edge of the ubiquitous potato field. You could keep it to a single tree yourself by snipping off any suckers. Hardy, disease resistant, productive and extremely long-lived. Recommended for trial in all areas of northern New England. Z3/4. **ME Grown**

200A Garfield Plantation, $25.00

Montmorency Summer. Seedling of Cerise Hâtive or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. about 1830. The most famous of all pie cherries. Not widely grown in Europe or Russia but long the standard of excellence in the U.S. Firm-fleshed bright red fruit makes a clear light pink juice. Surprisingly hardy, though not as hardy as Garfield Plantation or Evans. Our Aroostook County test orchard trees fare better than Meteor, but just barely. Should do really well from central Maine south. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. Parent of Meteor. Z3.

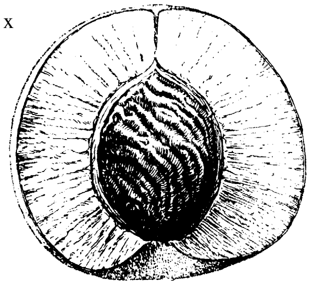
201A Montmorency, $25.00

Peaches

P. persica Although many people will tell you not to bother growing peaches in Maine, if you've been repeatedly saddened by the poor quality available in the supermarket, what's there to lose? Many trees in northern New England produce large crops. They bear young and so heavily that they may break branches if unthinned or unsupported. Trees may die unexpectedly at any age; there are no truly hardy peach cultivars. But peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl**. PLC is not a fatal problem but does need to be controlled if you get hit with it. Look for crinkled or puckered foliage in spring. Remove affected leaves and compost them. Spray the tree early the following spring while it is still dormant (before any buds open!) with lime sulfur or copper. Onion, garlic or horsetail spray while leafed-out may also be effective.

Some growers are miffed that they get no fruit after dutifully **pruning** their trees. Peaches fruit on last year's growth! If you prune it off, you'll get no fruit. Prune your peach trees in April or even May up north, once they begin to leaf out. Trim off any dead branches and leave most or all of the live wood. If your tree becomes leggy, make a few bold cuts each year back to a vigorous branch closer to the trunk. That will promote even fruiting throughout your tree.

Peach trees do not need a second variety for pollination. Plant 15-20' apart. (3-6' trees)



Contender Mid-Late. NCT 544 (Winblo x complex parentage of North Carolina selections) DJ Werner, JR Ballington and DF Ritchie introduction, Ag Experiment Stn, Raleigh, NC, 1988. A fairly new high-quality hardy variety worth trialing in the North. Large round bright red and yellow freestone fruit with a slightly raised suture. Firm melting aromatic yellow flesh. Growth habit similar to Red Haven, ripens 3 weeks later. Resistant to leaf spot. Because it blooms quite late, it might escape late spring frosts. Z4/5.

202A Contender, $25.00

Garnet Beauty Early. Sport of Red Haven. Ruthven, Ontario, 1958. A sport (mutation) of Red Haven discovered by Garnet Bruner in 1951 and introduced seven years later. Medium to large yellow-fleshed semi-clingstone fruit with excellent flavor. The earliest peach we offer; ripens 12 days earlier than Red Haven with similar hardiness. Vigorous and productive tree. Good bud hardiness. Recommended for colder distics. Z4/5.

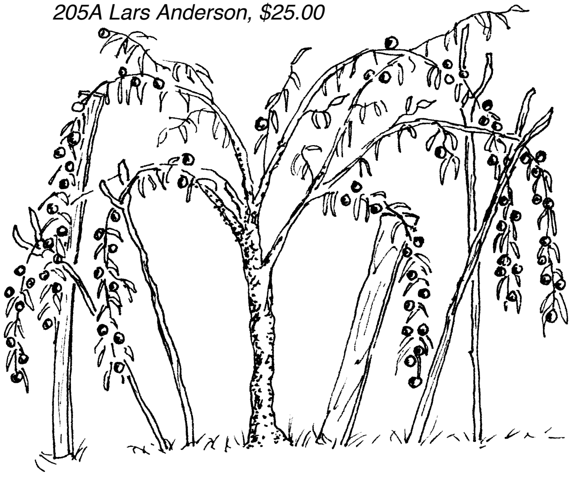
203A Garnet Beauty, $25.00

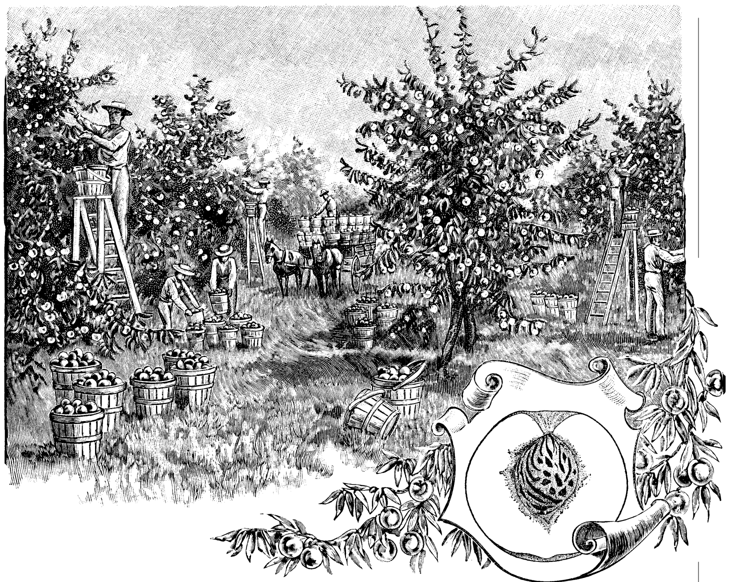
Harrow Beauty Mid. HW 231 (Cresthaven x Harken) Harrow Station, Ontario, Canada, 1983. Brilliant red and yellow, well-colored attractive fruit, about the same size as Reliance. Firm yellow freestone flesh has very good flavor. Ripens 15 days after Red Haven. Considered to be as hardy as Red Haven and recommended for trial in colder areas. Tolerant to perennial canker, bacterial spot and brown rot. Z4/5.

204A Harrow Beauty, $25.00

Lars Anderson Early. Uncertain origin. Pastor Chuck Orchards, Cushing, ME. Large juicy sweet yellow-fleshed freestone fruit. Lars Anderson's son-in-law Waite Maclin (AKA Pastor Chuck) brought this tree to our attention several years ago. Waite described the fruit to me as "tasting just like a peach should taste. When I give them away to friends and neighbors they think the peaches have been purchased in the South." Lars Anderson planted the tree on the Maine coast about 1965. He died in 1981 but the family continued to maintain the peach, even after a huge 1982 nor'easter blew the tree to the ground and split it in half. After the old tree finally succumbed in 2009 Waite sent us a monogrammed "slice" of trunk which we display on our mantle. Currently being tested in Zone 4, but for now, it should be considered a Zone 5 plant. **ME Grown**.

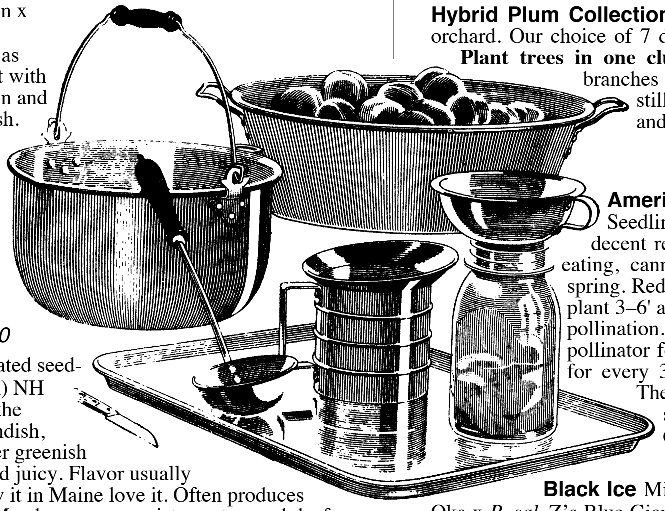
205A Lars Anderson, $25.00





Madison Late. Ideal x Red Haven. VA Station, 1963. A fine peach for the North, with hardiness similar to Red Haven (though it ripens 3 weeks later). Medium-large fruit with bright orange skin and bright red blush. Orange-yellow firm fine-textured juicy flesh with excellent very sweet rich peach flavor. Very good quality. Skin peels easily. Freestone, excellent canner. Very productive tree. Exceptional tolerance to blossom-season frost. Z5.

206A Madison, $25.00

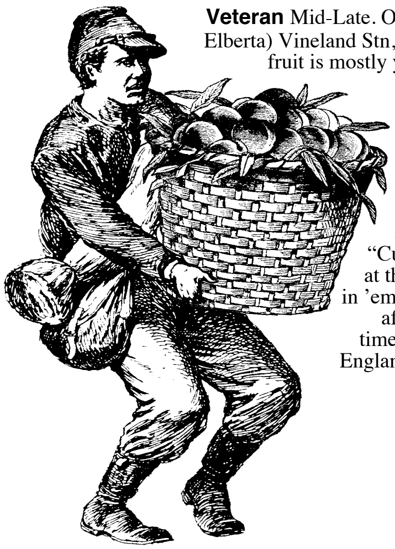


Red Haven Early-Mid. (Halehaven x Kalhaven) MI Ag Exp Stn, 1940. Considered hardy, but not as hardy as Reliance. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm fine-textured yellow flesh. Non-browning. Excellent for eating, freezing, canning, shipping. Probably the best-flavored peach we offer; also the world's most widely planted freestone peach. Hardy buds; vigorous highly productive disease-resistant spreading trees are tolerant to bacterial spot. Z5/6.

207A Red Haven, $25.00

Reliance Early-Mid. (open-pollinated seedling of Minn PHO 4559 x Meredith) NH Ag Exp Station, 1964. Considered the hardiest peach. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but those who grow it in Maine love it. Often produces large crops. Bears at an early age. May have some resistance to peach leaf curl. Z4/5.

208A Reliance, $25.00



Veteran Mid-Late. Ont-1940208 (Vaughan x Early Elberta) Vineland Stn, Ontario, 1928. Medium-large fruit is mostly yellow-skinned with a flash of red. Soft yellow melting semi-freestone flesh, of good quality. Vigorous, reliable and productive. Not so much a fresh-eating peach, but has gained a reputation as an excellent canner. Peels easily and tastes like August in a jar. "Cuz the canned goods that I buy at the store/ Ain't got the summer in 'em anymore." Ripens 3–4 weeks after Red Haven, about canning time. Hardy enough for most New England peach-growing yards. Z4/5.

209A Veteran, $25.00

Hybrid Plums

Prunus spp. are extremely hardy crosses between various Asian and American species.

Hybrid plums require a second variety for pollination. Hybrid plum pollination has been glossed over—or avoided—in virtually all catalogs and fruit-growing literature for generations. Some years on our farm we were getting decent crops, but most years, not. We tried a number of different strategies as Fedco catalog readers will know. However Rick Sawazky at the University of Saskatchewan unearthed a 1934 article that quoted Prof. W. H. Alderman of the University of Minnesota: "…very few hybrid plums would accept pollen freely from other hybrids, but they all accept pollen from native plums." Perhaps the breakthrough we'd all been searching for!

Our own suspicions, as well as our experiments, appear to corroborate this view. Here's what we recommend: plant a cluster of trees close enough together (3–6') for the branches to "co-mingle." Our "clusters" number from three up to nearly a dozen trees. Include native plum pollinators among the hybrids. With some decent sunshine during bloom, you should get good fruit set. Usually Toka, South Dakota and Kaga are recommended as the best pollinators among the hybrids. We also highly recommend planting pure *Prunus americana* (#**211** or #**165**) or *P. nigra* seedlings or grafted trees in the orchard. We include the American plum seedling in this hybrid section because it may be the best pollinator for the hybrids.

There has recently been speculation that pollination improves with heat. Growers in warmer districts often report better success with pollination. Perhaps colder temperatures retard pollen production or even somehow render it ineffective. This could in part explain the fantastic plum crop up here in 2008. Not only was it sunny all during bloom, it was also warm.

Of course, plums are still susceptible to a small pesky insect, the plum curculio. We have read that laying sheets of cardboard under plum (and apple) trees will smother the PC pupae developing in the soil. PC is not difficult to control organically with Surround (see the Organic Growers section of the Seed catalog). With decent pollinators nearby, Surround may not even be necessary. In 2008 we decided to skip Surround on one grouping of 8 trees and still got a good crop.

Bloom times similar for all varieties. Not susceptible to black knot. (3-6' trees)

Hybrid Plum Collection A package of seven trees to begin your plum orchard. Our choice of 7 different trees, including at least two pollinators. **Plant trees in one cluster**, with about 3–6' between trees. Let the branches grow right into one another (see above) while still keeping them pruned to allow in plenty of air and light. Trees are individually labeled.

210A Hybrid Plum Collection, bundle of 7 for $150.00

American Plum Seedling *P. americana* 15-20' Seedling plum that grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring. Red fall color. Plant singly as a graceful specimen or plant 3–6' apart and let the branches intertwine for maximum pollination. Tends to sucker freely. May be the best pollinator for hybrid plums. (See above.) Plant one of these for every 3 or 4 plum trees, within 10' of each of them. These trees are significantly larger than #**165**, plum seedling rootstock. Extremely hardy. Z3. **ME Grown.**

211A American Plum Seedling, $25.00

Black Ice Midsummer. *P.* Lydecker [*P. besseyi* x (*P. salicina* Oka x *P. sal.* Z's Blue Giant)] U of Wisc, River Falls, 2006. Large 2" round early-ripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by Brian Smith who I visited a few years ago on a fruit exploration trip in the Upper Midwest. He graciously showed us all through his amazing nursery in River Falls. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. Though we're not fans of plant patenting, we have been eager to offer his first major introduction. PVP 16621. The literature recommends Toka or La Crescent as a pollinator. Now in trials at our farm. Z3.

212A Black Ice, $25.00

Cocheco Midsummer. (Purple Heart x unnamed red-leaf plum) Elwin Meader intro. Rochester, NH, c. 1968. In a lengthy *Maine Sunday Telegram* article on September 8, 1968, Meader said, "It's an example of being able to have your cake and eat it. The new tree is beautiful enough to be an ornamental. It also has delicious fruit and windbreak value." As we sat together chatting in the gazebo a couple of years ago, a friend suddenly turned to me and said, "What is that tree?" Even at 100 feet away, it is a strikingly beautiful sight. Red twigs and buds in winter, light pink flowers in spring, glossy red foliage all summer long. Red-orange fruit filled with soft sweet pinkish flesh. One of the first to ripen in midsummer. Relatively large tree with an upright growth habit. May be self-pollinating, though we recommend treating it like other hybrid plums. Z4. **ME Grown.**

213A Cocheco, $25.00

Ember Late Summer. MN 83 (*P. sal.* Shiro x *P. a.* South Dakota #33) U Minn, 1936. Medium-sized roundish-conic slightly pointed mostly red-blushed fruit with a medium bloom. Rich yellow juicy sweet flesh is very firm and meaty but tender. Recommended for cooking and fresh eating. Tastes and looks like an apricot. Low spreading vigorous tree. Z3. **ME Grown**.

214A Ember, $25.00

Grenville (*P. sal.* Burbank x *P. nigra*) Canada Dept of Agriculture Research Station, Ottawa, 1941. Large dark rosy-red clingstone fruit, resembling Burbank. Yellow flesh with excellent flavor. Vigorous early-blooming tree. Most of the hybrid plums were developed using Asian varieties crossed with *P. americana*. Grenville was bred using *P. nigra*, the extremely hardy Canada plum. Pollination requirements are the same as other hybrids, but the tree and fruit will be somewhat different from the others. Like *P. nigra*, very hardy. Z3. **ME Grown**.

215A Grenville, $25.00

Kaga Mid-Late Summer. (*P. a.* x *P. simonii*) NE Hansen introduction. SD Stn, 1909. Small 1" purple-black fruit. Good eating out of hand when they're dead ripe. Exceptional in jams and jellies due to the meatiness of the black flesh. This is not one of those plums that dissolves and dribbles down your chin. The most profuse bloomer in Mark Fulford's plum collection, coming right in the middle of plum season. Mark considers it to be an excellent pollinator for other hybrid plums. It also bears reliably in his Monroe, ME, orchard. Now on trial in our Palermo orchard. Dense naturally dwarf tree grows only to about 10'. *Kaga* is the Sioux word for 'pitch a tent.' Z3. **ME Grown**.

216A Kaga, $25.00

Pembina Midsummer. (*P. sal.* Red June x *P. n.* Assiniboine) NE Hansen intro, SD Exp Stn, 1923. Large pointy bright red fruit with bluish bloom. Dark golden-orange flesh is firm and apricot flavored. One of the first of the hybrids to ripen every summer, about the same time or a bit earlier than Underwood and well before the bulk of the plum crop. Z3/4. **ME Grown**.

217A Pembina, $25.00

Purple Heart Late Summer. Elwyn Meader introduction, Enfield, NH. Medium-sized fruit with red-purple skin and flesh, and a delicate but full sweet flavor. The most delicious plum we grow. It's great. Origins shrouded in mystery. It was brought to the great plant breeder Professor Elwyn Meader by a fellow who passed away before Meader could ascertain the plum's origin. It also has uncertain pollination requirements and is almost certainly not your typical hybrid. Underwood may be a good pollinator. If you have Purple Heart pollination experiences to share, please let us know. Not as hardy as other hybrids. Shows tip or even branch damage following colder winters in central Maine. Has shown susceptibility to black knot in some locations. Relatively small tree. Z4/5. **ME Grown**.

218A Purple Heart, $25.00

Toka Late Summer. (*P. a.* x *P. sim.*) Intro by NE Hansen, SD Exp Stn, 1911. Rosy red fruit, up to $1^1/_2$" in diameter, mottled with darker purplish-red and covered with a faint bloom. Grower Don Johnson's comment: "Talk about flavor: candy plum." Ed Fackler called Toka the best-flavored plum he grew in his Indiana orchard. Sweet, distinctive, meaty and flavorful. Not real juicy. Somewhat freestone. Extremely vigorous tree blooms heavily every year. Diligent pruning may be required to keep it from becoming a bit of a monster. Considered to be a good pollinator for other hybrid plums. Z3. **ME Grown**.

219A Toka, $25.00

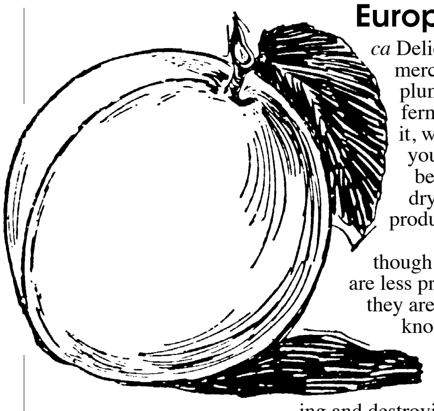
Underwood Midsummer. MN 91 [(*P. sim.* x *P. sal.* Shiro) x *P. a.* Wyant] U Minn, 1921. Medium to large 2" dull red fruit. Firm sweet juicy golden-yellow semi-freestone flesh, very good for eating and cooking. Long picking season. Blooms earlier and longer than most hybrids and appears to be a very good pollinator for other hybrid plums, including Purple Heart. Northern Maine grower Steve Miller considers it to be one of his most reliable bearers. Long ripening season. Vigorous large spreading tree. Z3. **ME Grown.**

220A Underwood, $25.00

Waneta Midsummer. (*P. sal.* Apple x *P. a.* Terry) NE Hansen intro, SD Exp Stn, 1913. Released one year after Kahinta, and with the same parentage, when hybrid plums were an important and commercially viable crop. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Large, somewhat pointed, $1^1/_2$–2" reddish-maroon fruit. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early blooming healthy open spreading tree bears reliably in our orchard. Z3. **ME Grown**.

221A Waneta, $25.00

ME Grown = grown in Maine by a member of the Fedco growers coop.



European plums *P. domestica*

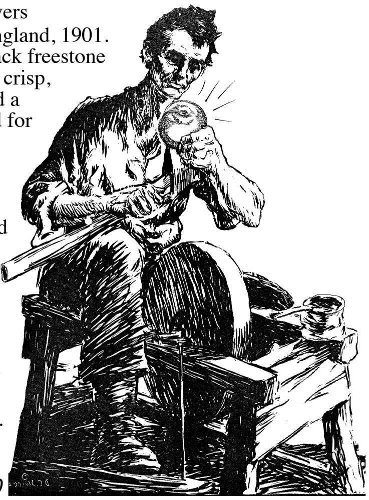
Delicious fresh and often grown commercially for prunes. A true prune is a plum that can be dried without the pit fermenting. Although we've not tried it, we've heard recommendations that you blanch the plums for 45 seconds before drying them. They should be dry in a day or two. European plums produce smaller fruit and are generally not as hardy as the hybrid plums, though they can handle heavier soils and are less prone to brown rot. Unlike hybrids, they are prone to the fungal disease black knot, which looks like black chewing gum and appears on branches. While not necessarily fatal, it must be kept in check by removing and destroying infected branches. Trees grow upright and are usually trained to a central leader. Although **European plums are self-pollinating**, planting two different varieties will improve pollination. (3-6' trees)

Green Gage Mid-Late Summer. Unknown origin, may be *P. domestica* x *P. institia*. Probably Armenia, long before 1500. Also called **Reine Claude**. Often considered the best of all dessert plums. Small round semi-freestone yellowish-green fruit sometimes mottled with red has tender, juicy, melting flesh with rich flavor. Like candy on a tree. A favorite in Europe for over 500 years. Long referred to as Armenian plum, suggesting its possible point of origin, though no one knows for sure. Found its way into Greece and Italy and then introduced into France in the early 16th century where it acquired the name Reine Claude in honor of the wife of Francis I. Later brought to England by the Gage family. While a number of Gages have been selected over the years, Green Gage remains the original. Medium-sized tree, bears heavily. Not long-lived. Fruit susceptible to cracking. Z4.

222A Green Gage, $25.00

Mount Royal Late Summer. Chance seedling, Outremont, Quebec, before 1903. Popular plum in Quebec and the northern U.S. for many years. Also called **Mont-Royal**. Discovered by Mr. Corse in or near Montreal sometime during the period between 1830-1850. Bears abundant annual crops of medium-sized roundish dark-purple fruit. Often considered the sweetest of the European plums. The flesh is greenish-yellow, juicy and firm. Use fresh, dried, frozen, canned and in preserves. Medium-sized tree is open with good crotch angles and requires only moderate pruning. Z3. **ME Grown**.

223A Mount Royal, $25.00



President Summer. Thomas Rivers introduction, Sawbridgeworth, England, 1901. Large round-oblong dark blue-black freestone fruit. Fine-grained yellow flesh is crisp, sweet, with good acid balance and a slight astringency. Recommended for fresh use, canning and preserves. Keeps a month in the fridge. The last to ripen of the European plums, about three weeks after Stanley. Received the RHS Award of Merit in 1895 and a First Class Certificate in 1905. Vigorous upright spreading productive tree. Although most Europeans are considered to be self-pollinating, planting with Stanley is recommended. Bred by one of the most revered British horticulturists of the 19th century. Resistant to black knot and bacterial spot. Z4/5.

224A President, $25.00

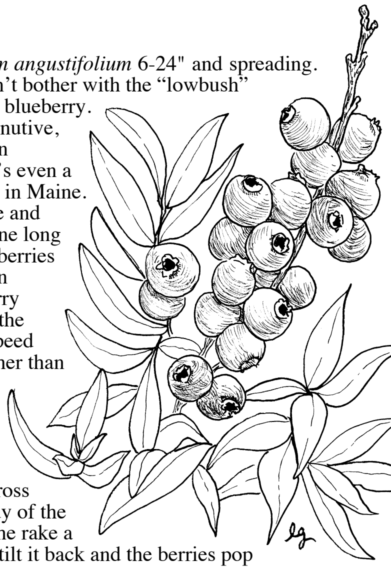
Stanley Late Summer. (*P. d.* Agen x *P. d.* Grand Duke) NY Station, 1926. Most popular European prune plum in America with the possible exception of 'Italian'. Excellent for cooking, eating, canning and drying. Medium-to-large oval fruits with dark blue skin. Green-yellow firm but tender juicy fine-grained sweet flesh. Reliably bearing fast-growing adaptable medium-to-large funnel-shaped tree produces healthy vigorous annual crops. Z4.

225A Stanley, $25.00

Plum Curculio... and garlic

Plum curculio is a terrible plum and apple pest. Many organic growers spray Surround clay powder on their trees to combat this weevil. Many years ago we planted garlic near one of our apple trees and neglected to harvest all the bulbs. Now we have a small colony of garlic plants around the tree. Recent reports are touting garlic as a curculio deterrent. Anecdotal evidence suggests the garlic may be working at our place. Plant more garlic!

Small Fruits & Berries



Lowbush Blueberry *Vaccinium angustifolium* 6-24" and spreading.

Blueberry growers in Maine usually don't bother with the "lowbush" distinction; to them, this is the only true blueberry. Though both plants and berries are diminutive, the taste is supreme. Lustrous blue-green medicinal foliage is good in teas. There's even a new blueberry leaf tea industry brewing in Maine. Amazing combination of bronze, orange and scarlet foliage in the fall. Grown in Maine long before Europeans came Downeast, blueberries are still a local favorite and cultivated on thousands of acres. Commercial blueberry land is burned in the spring to clear out the weeds; a crop follows a year later. To speed harvesting, berries are usually raked rather than hand-picked though you don't have to burn and rake to have a small-scale planting.

Invented in Maine well over 100 years ago by Abijah Tabbutt, the blueberry rake looks something like a cross between a comb and a dustpan. The body of the rake is even called the pan. You comb the rake a bit into the bushes (but not deeply so!), tilt it back and the berries pop off and roll into the pan. As the saying goes, "the lighter the hand, the more berries in the pan." You will also inevitably accumulate small twigs and leaves and various other odds and ends. Best raking is done on a breezy day. Lift the rake above your pail (we use a 5 gallon bucket) and pour. Ideally the berries will stream into the bucket while the twigs and leaves flutter off in the wind. Native to northeastern U.S. Spreads by seed and rhizomes. We offer square sections of sod, a small mat of roots and plants that will gradually form colonies once transplanted. Z2. **ME Grown**. (6x6" sod)

226A Lowbush Blueberry, $15.00

Lowbush Blueberries

Woodsy dry poor acid soil (pH 4.0–5.2) is a prerequisite for lowbush blueberries. If you've got white pine, you're probably all set. Plant 12" apart each way and cultivate as a ground cover. Generally self-pollinating; other blueberries nearby will help ensure pollination. Full sun is best for maximum fruit production. Keep your patch weed free.

Highbush Blueberries *V. corymbosum* are native to North America.

While usually associated with New Jersey and Michigan, many of Maine's lakes are lined with massive stands of highbush blueberries. Grazing the shore requires only time and a suitable vessel; John prefers kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable, with few disease or insect problems. By planting several varieties, you can harvest berries from early July through most of August. Bears first crop 3–7 years after planting. Productive for at least 20 or 30 years. Berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! **Two varieties are required, three or more recommended, for pollination**. (1-2' 2-yr transplants)

Bluecrop Early-Midseason. GM 37 (Jersey x Pioneer) x CU-5 (Stanley x June) USDA, NJ, 1952. Medium-sized firm subacid fruit; very light blue berries of high dessert quality, resistant to cracking. Medium-large open clusters. Vigorous, upright 4-6' consistently productive bush. Ripens over a long season. Pruning will help maintain fruit size. Z4.

227A Bluecrop Blueberry, $12.25

Blueray Early-Mid. (GM 37 x CU-5) USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous 4-6' bush with upright spreading habit. Consistently productive. Ripens a few days before Bluecrop. Z4.

228A Blueray Blueberry, $12.25

Elizabeth Mid-Late. Introduced in 1966 by Elizabeth White of New Jersey who found numerous heavy-fruiting strains from wild bushes that became the basis for many of today's cultivars. Friend and avid fruit grower Dan Kennedy of Searsmont, ME, grows 17 different varieties of highbush and rates it and Blueray as his top favorites. He describes the bushes as bearing "dense clusters of large fruit" with a balanced flavor of sweet and tart. Stores well in refrigeration. Large vigorous upright shrub reaches 5–6' tall at maturity, has strong spreading lateral branches. Z4.

229A Elizabeth Blueberry, $12.25

Elliott Very Late. Burlington x [Dixi x (Jersey x Pioneer)] USDA, 1974. A real season-extender. Considered the latest of all varieties, Elliott ripens two weeks after Jersey. Loose clusters of medium-sized very firm mild-flavored light-blue berries. Slightly spreading somewhat bushy 4–6' upright plant is consistently highly productive in part because it blooms late and escapes spring frosts. Z4.

230A Elliot Blueberry, $12.25

Jersey Mid-Late. (Rubel x Grover) USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium-to-large dark blue berries in large loose clusters. Vigorous erect hardy bush, 5–7' tall. Productive, widely grown, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4.

231A Jersey Blueberry, $12.25

Meader Early-Mid. Elwyn Meader introduction, Univ of NH Ag Exp Stn, Durham, NH, 1971. Medium-large, medium-blue fruit with excellent flavor. Sweet with a hint of acid. Vigorous upright open lightly spreading form, 5–7' tall. Very hardy. Z4 or even Z3.

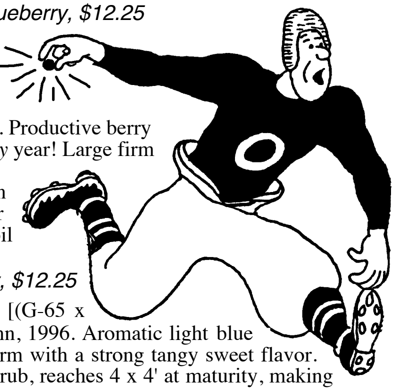
232A Meader Blueberry, $12.25

Nelson Late. [(Bluecrop x G-107) (F-72 x Berkeley)] USDA, NJ, 1989. Highly rated newer release. Firm large dark blue berries in loose clusters combine the great taste of Bluecrop with the large size of Berkeley. Particularly vibrant red fall foliage. Upright vigorous high-yielding 5–6' bush. Z4.

233A Nelson Blueberry, $12.25

Northland Early. (Berkeley x 19-H) Mich St U, 1967. Early highbush x lowbush type bears long loose clusters of medium-small dark blue berries with excellent wild flavor. Very vigorous and productive, 3' moderately spreading bush has limber branches which tolerate snow well. Good for landscaping, bird forage and dessert. Hardy. Z3.

234A Northland Blueberry, $12.25



Patriot Early-Mid. US3 [(Dixie x Michigan LB-1) x Earliblue] U Maine, 1976. Partial lowbush parentage. Adaptable to many soil types. Productive berry will fill your super bowl *every* year! Large firm berries with good color and excellent flavor. Upright open spreading 4' bush. Tolerant or resistant to some strains of soil fungus. Hardy. Z3.

235A Patriot Blueberry, $12.25

Polaris Early-Mid. MN408 [(G-65 x Ashworth) x Bluetta)] U Minn, 1996. Aromatic light blue medium-sized fruit is very firm with a strong tangy sweet flavor. Smaller slightly spreading shrub, reaches 4 x 4' at maturity, making it a good choice where space is limited. Very hardy. Z3.

236A Polaris Blueberry, $12.25

Reka Early. E118 [(Earliblue x Ashworth) x Bluecrop] Ruakura RRC intro, New Zealand, 1985. Medium-sized slightly tart berries have very good flavor. Reka becomes highly productive at an earlier age than most other blueberries, maintaining higher-than-average yields for years to come. Has become well-known among commercial growers for being one of the fastest growing and most adaptable varieties; will grow in a wide range of soil types from sand to heavy clay. Withstands wetter conditions better than most varieties. Burgundy fall color an added bonus. Upright vigorous habit, reaches 4–6'. Z4.

237A Reka Blueberry, $12.25

Highbush Blueberries are shallow-rooted and like light acid soil (pH 4.0–5.2) with plenty of organic matter, good drainage, and plenty of water. Space them 3–6' apart (3' for the shorter varieties) in rows 8–10' apart. If your soil is lacking acidity, add peat, woods humus, or 1 cup elemental sulfur per bush.

Dig a hole at least twice the size of the root ball. If you use peat, soak it and then mix it with soil at a one-to-one ratio. We suggest dipping roots in Agri-gel. Plant at the same depth as in the nursery (or slightly deeper). Do not let the roots dry out! Pack the soil firmly and water thoroughly. Plants require at least 1" water per week during the growing season. On most soils, blueberries require regular applications of nitrogen. In the spring, fertilize with 21-0-0 fertilizer at a rate of 1–2 tablespoons per year-of-age plant (e.g., 3–6 Tbsp for a 3-year-old plant). Or use an organic equivalent such as $^{1}/_{2}$–1 qt composted hen manure per plant.

Fruit is produced on vigorous one-year shoots off healthy canes. As canes age they become twiggy and less productive. Begin pruning after three years. Head back long pieces of new growth for a bushier plant. Cut out weak or dead canes and dead tips. Each bush should be allowed to grow 6–10 canes varying in age from one to six years old. Thereafter, remove dead canes and those over 6 years old and encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.

Berries may need net protection from birds. One of the best arrangements we've seen is John Meader's netted "house" in Buckfield. He has about 40 bushes growing under a framework made of posts and 2x4s and completely covered in netting.

Competition with grass may weaken and kill your blueberries. Mulch heavily (3–6" or more) every year with pine needles, cardboard, wood chips, hay, sawdust, even old slab wood. When using sawdust you may want to compensate by adding extra nitrogen.

Raspberries *Rubus* spp. We love raspberries. Fresh raspberries, frozen raspberries, raspberry smoothies, raspberry jam and especially raspberry pie. We even like the dried foliage—best taken from the first-year primocanes—which makes a delicious and healthful tea. A leaf and fruit vinegar is very high in minerals, and the leaf tea makes a great tonic for both uterus and prostate. The root bark is also medicinal. Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i.* var. *strigosus*. 53 different *Rubus* species and subspecies live in Maine.

Everbearing types bear on first-year canes or primocanes. Everbearing raspberries are particularly desirable for northern growers because they can die to the ground (or be cut to the ground) and still produce a sizable crop the following year. However, most everbearers ripen too late for growers in Zones 3 and 4 and cold areas of Zone 5. We don't list Heritage, a popular producer of high-quality fruit, for that reason. We offer Polana because it is one of the earliest fruiting of the everbearing varieties. In central Maine the first of these ripens in mid to late August.

Summer-bearing cultivars bear on second-year canes or floricanes. Midseason berries ripen around late July in central Maine.

A second variety is not needed for pollination. Prior to planting, soak canes in Agri-gel (see sidebar; available here or in the Organic Growers Supply section of the Seed catalog.)

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is OK. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. (well-rooted bare-root canes)

Everbearing Raspberries

Anne Late. JEF-b1 (Amity x Glen Garry) U of MD, 1998. Everbearing sweet flavorful pale yellow raspberry ripens in fall. Large cohesive conic fruit stores decently, firmer than other yellows. Semi-vertical canes may sucker less than most everbearing types. Cut it entirely to the ground after the season is over. Resistant to Phytophthora root rot. Z4.

238A Anne Raspberry, bundle of 10 for $25.50

Polana Late. Heritage x Zeva Herbsternte. Research Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Very early fruiting everbearing red raspberry has performed very well in our Fedco trials. Ripens in late August or early September in northern districts. According to David Handley of the University of Maine, "as near a thing to a sure bet." Large firm berries with very good flavor on vigorous and productive short canes. Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4.

239A Polana Raspberry, bundle of 10 for $25.50

Summer-bearing Raspberries

Boyne Early-Mid. Chief x Indian Summer. Morden Research Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. Grower John Meader speaks glowingly of Boyne, calling it "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Extremely hardy. Shows no tip damage in Zone 3. Leaves tend to curl down over the fruit making it difficult to pick if you're in a hurry. Yields well, but less productive than Killarney. According to friends who make honey and fruit butters, there is no better raspberry for processing. No disease and very little pest damage. Z3.

240A Boyne Raspberry, bundle of 10 for $25.50

Killarney Early. Chief x Indian Summer. Morden Station, Manitoba, 1961. Produces medium-to-large round crumbly fruit of excellent quality over a long season. Deep red summer-bearing cultivar ripens after Prelude and before Nova. Same parentage as Boyne but firmer texture and brighter color. Sturdy 4' canes. Yields consistently. Extremely hardy. Z4.

241A Killarney Raspberry, bundle of 10 for $25.50

Latham Mid. MN4 (King x Loudon) U. Minn 1920. A standard raspberry for almost a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice, or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4–5' tall and highly productive. Widely adaptable and very winter hardy, not as spiny as most raspberries, disease resistant. Z3.

242A Latham Raspberry, bundle of 10 for $25.50

Royalty Purple Mid. (Cumberland x Newburgh) x (Newburgh x Indian Summer) NY Stn, 1982. Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. A favorite for fresh eating among those who know it. Cohesive fairly firm large berries make outstanding jam and jelly, too. Extremely robust minimally suckering plants are very productive and open-formed; the berries are right in your face and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills (see sidebar). Usually considered Zone 4 but is proving itself into Zone 3 with occasional slight tip dieback. Does not like wet soil. Disease resistant. Z3/4.

243A Royalty Purple Raspberry, bundle of 5 for $25.50

Black Raspberries

Bristol Midsummer. (Watson Prolific x Honeysweet) NY St Ag Exp Stn intro, Geneva, NY, 1934. Medium-large firm glossy black fruit with excellent flavor, very different from reds, more similar to a blackberry but with its own unique taste. Vigorous high-yielding plants have proven to be hardy. They ripen earlier in central Maine than most raspberries and require a different pruning strategy. The canes are really long and will arch out over the horizon and then drop to the ground and root themselves. Let them do so, pile a little soil over the rooting spot and in a year or so you'll have more plants to spread around the yard or neighborhood. Or, prune the canes in mid-July to about waist high and you'll get branchier plants and more fruit. Susceptible to anthracnose and tolerant to powdery mildew. Z4.

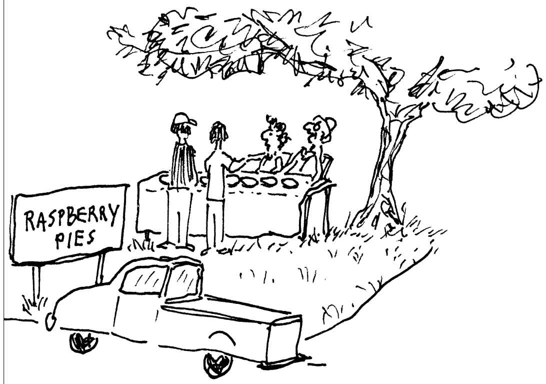
244A Bristol Black, bundle of 5 for $25.50

Raspberries and Blackberries

Cane fruits have shallow perennial roots. They prefer full sun, good air circulation, and well-drained soil rich in organic matter. Avoid soils where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. A well-kept patch can last for 10–20 years.

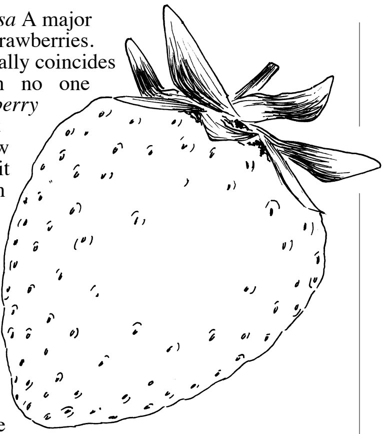
Prepare planting holes by adding manure (15 bushels dry or 10 bushels fresh per 100 sq ft) and make each large enough to spread out the roots. Do not allow the fine roots to dry out. We suggest soaking roots in Agri-gel for 1–2 hours before planting. Plant 1–2" deeper than in the nursery and then cut the canes off at ground level. Mulch with a thick layer of woodchips. Fertilize liberally each spring with up to 100 lbs manure or compost, 8 lbs bloodmeal or 14 lbs soybean meal per 100 foot row. Some sources recommend additional nitrogen feeding each June and August. Plants require 2" water per week during the growing season.

- **Summer-bearing raspberries**: To make a hedgerow, trellis between two wires about 3–4' off the ground and 18–36" apart. Space plants 2' apart. After harvest, prune to the ground the canes that carried fruit (or remove them the following spring). Thin the fresh first-year canes to about 3–4" apart. They will bear fruit next year. During the growing season cut back canes to 5' if they are bending over severely.
- **Purple and black raspberries** and **blackberries**: Plant in hills 3–4' apart, 3–4 plants per hill. Tie to a center post for support, if needed. Basic pruning is same as above. As they fill in, thin to 5–8 canes per hill. During the early summer, pinch back tip of first year canes to 2½–3' tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. In the following spring, cut these fruiting laterals back to 8–12 buds.
- **Everbearing raspberries**: Plant 9–15" apart. Because everbearing types bear fruit on first-year and second-year canes, you have a couple of options. In warmer districts, you can leave the first-year canes to overwinter after they fruit. The following year, you will get a light crop in early summer from those now two-year-old canes, followed by a larger crop later from the new first-year canes. In colder areas generally you would cut all canes to the ground in late fall after the leaves drop, or in early spring; new first-year canes will fruit in mid-late summer.



Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* ½ oz.

L560A Agrigel, $3.00



Strawberries *Fragaria* x *ananassa* A major highlight of every summer is picking strawberries. In central Maine strawberry season usually coincides with the summer solstice. Although no one knows where the common name *strawberry* originated, idle speculation has it that it comes from the practice of putting straw down between the rows for pickers to sit on while they sample the fruit and catch up with each other.

Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America). Royce Bringhurst of the University of California, Davis, developed day-neutral strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern commercial varieties and introduced the first day-neutrals in 1980.

50 plants will plant from 50-100'. (virus-free bare-root stock)

Cavendish Early-Mid. K83-4 (Annapolis x Glooscap) Canada Res Stn intro, Nova Scotia, 1990. Medium-large fruit, glossy deep red skin with firm flesh which is almost entirely red. Shaun Keenan and Benji Knisley of Sand Hill Farm in Somerville, ME, have been growing this berry for years. It is a favorite among some pickers and Benji's favorite for making jams. Berries ripen with some white around the stem so don't be deceived, they might be ripe before they look it. Sweet melon-like flavor, less tart than Honeoye and ripens around the same time. Highly productive yields continue over a long season and have proven reliable even when other varieties don't come through. Very hardy and climate adaptable. Resistant to red stele, powdery mildew and verticillium wilt. Z3.

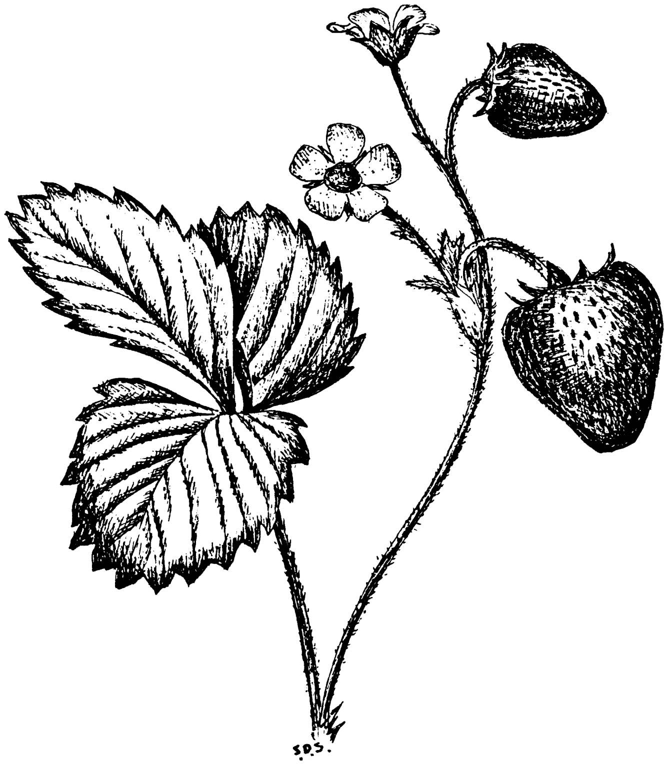
L245A Cavendish, bundle of 50 for $16.50

Earliglow Early. MDUS 3861 [MDUS 2359 (Fairland x Midland)] x [MD2713 (Redglow x Surecrop)] Maryland Ag Exp Stn, 1966. Medium-sized berries, best for fresh eating and freezing. Excellent flavor for an early berry. Barbara Bowling called it the best-flavored of all varieties in *The Berry Growers Companion*. Also a favorite of strawberry growers at Sand Hill Farm. Resistant to red stele and verticillium wilt. Hardy, but considerably more productive in southern New England than up north. Z3.

L246A Earliglow Strawberry, bundle of 50 for $16.50

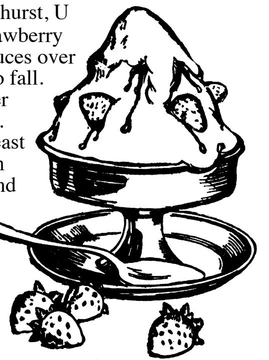
Honeoye Early-Mid. NY 1409 (Vibrant x Holiday) NY Station, 1979. Folks pronounce it *honey-eye*. Tough, hardy, vigorous, extremely productive, and easy to grow. The freezer-filler of the strawberry patch. Large conic bright red fruit produces over a long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. A week before Jewel. Probably the most popular commercial berry in the Northeast. Plant in well-drained soil to avoid red stele. Susceptible to verticillium wilt. Z3/4.

L247A Honeoye Strawberry, bundle of 50 for $16.50



Jewel Mid-Late. NY 1324 [(Senga Sengana x NY E-58) x Holiday] NY Stn, 1985. Shaun Keenan suggested that we add Jewel to our list; he even went so far as to say that Jewel tastes almost as good as Sparkle. Although we don't think we'd go quite that far, we were very impressed with the berry. Large bright red glossy perfectly shaped fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, it keeps its size all season. Extremely popular with commercial growers and is Gene's favorite. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. Z4.

L248A Jewel Strawberry, bundle of 50 for $16.50

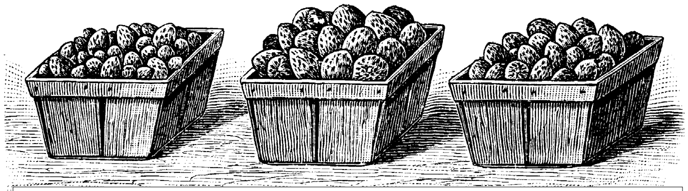


Seascape CN 49. Developed by Royce Bringhurst, U Cal, Davis, 1991. **Everbearing** day-neutral strawberry sets flower buds regardless of day length, produces over a very long season, fruiting all summer and into fall. Remove flower buds for the first six weeks after planting and you'll still get a crop the first year. Seascape is showing excellent results in Northeast trials. Medium-to-long conic high-yielding firm productive reliable fruit with bright red color and excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and two-spotted spider mite. Should be hardy in all but the coldest districts. Z3.

L249A Seascape Strawberry, bundle of 50 for $16.50

Sparkle Mid-Late. (Fairfax x Aberdeen) NJ Ag Exp Stn, 1942. Although not a favorite with commercial growers because of moderate crop size and smaller berries, we've yet to taste a strawberry that comes even remotely close to Sparkle. They possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. This is the berry if you want to eat the perfect strawberry. Soft berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. First fruit set is large; the rest are small. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. Z3.

L250A Sparkle Strawberry, bundle of 50 for $16.50



Strawberries

Keep cold or refrigerate between arrival and planting. We ship with roots slightly on the dry side. If you cannot plant them for a while, uncover the roots, mist them with water and re-cover, leaving tops exposed. Place bundle in paper bag and store on the bottom shelf of your fridge. Don't be alarmed if the tops become brown or mushy: they will generate new leaves.

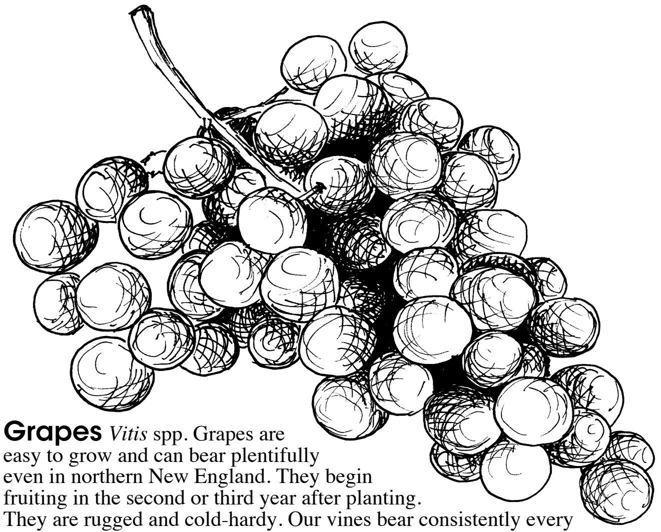
Strawberries require good air drainage, well-drained fertile soil with pH of 5.8–6.2, thick mulch and full sun. Avoid soils where tomatoes, peppers or potatoes have grown in the past 4 years. Plant strawberries at the same depth as they were in the nursery, with the middle of the crown at soil level. Keep your patch free of weeds. They require $^{3}/_{4}$–1" water per week during April, May, August, September and October. Mulch with hay or straw in late fall to protect plants over winter. In the spring, pull mulch off plants and place between rows where it will keep fruit dry and clean during the summer. It can also be raked back over the plants if frost threatens flower buds. Floating rowcover may also be used for winter and frost protection.

June-Bearing Strawberries

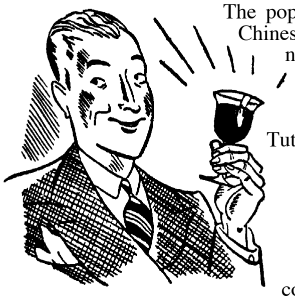
Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year. Harvest berries the second summer. Immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years. Then plow it under and start again.

Everbearing or **Day-Neutral Strawberries** flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are also uncommonly productive—about one pound of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather.

They are heavy feeders and benefit from 3–4" of manure worked 4–6" into the soil prior to planting, and monthly side-dressing of manure throughout the season. Plant 6–12" apart. Mulch with black plastic or thick straw immediately after planting. Remove flowers for the first six weeks, and remove all runners the first season. Mulch in late fall. Side-dress with manure monthly during the second season beginning in May. Till under after the second year and begin again.



Grapes *Vitis* spp. Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold-hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don't mind "grape nuts." Grape seeds contain an antioxidant that is twice as powerful as Vitamin C.



The popularity of drinking wine is not new. The Chinese were fermenting it from hawthorn berries nearly 12,000 years ago. The first wine from grapes was likely made in Turkey or Iran 7,000 years ago. Traces of red wine were found in the tomb of the Egyptian pharaoh Tutankhamen. Resveratrol is the polyphenol at the center of the current red wine hoopla. It appears to have anti-carcinogenic and anti-inflammatory properties as well as anti-microbial agents that work to prevent heart disease. Red wine is good for you!

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease-resistant. Concord is the best-known of the labruscas. *Vinifera*, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. Riesling and chardonnay are the two hardiest pure *vinifera* grapes.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. **Do not require a second cultivar for pollination unless noted.** (1-2 yr well-rooted vines)

Beta Midseason. (*V. riparia* x Concord) Originated by Louis Suelter (pronounced *Sool*-ter) in Minn, 1881. Beta was named after his wife and is pronounced *Bett*-uh not *Bay*-tuh. Old standby, excellent for juice, jelly and jam. Decent eating off the vine when completely ripe. Most concord-like of all our northern varieties. Medium-sized black berries in moderately compact to loose clusters. Early to bloom, early to ripen. Vigorous healthy productive vines will cover an arbor in short order. Long even canes are ideal for basket weaving. Extremely hardy. Z3.

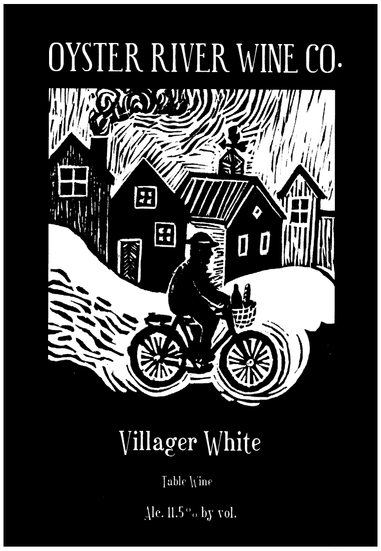
251A Beta Grape, $13.00

Bluebell Mid. MN 158 (Beta x unknown) Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Extremely hardy, to –30°, *labrusca* type ripens 2–3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Delicious sweet flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Rare. Z3.

252A Bluebell Grape, $13.00

Chontay Early. (Massasoit x Beta) Brookings, NE Hansen introduction, SD Stn, 1925. A generally forgotten variety from the Upper Midwest that we've been trialing for the past few decades. We like this grape. Medium-sized loose clusters of large purple fruit. Good fresh eating. In an old issue of the Minnesota Grape Growers' *Notes from the North*, Tom Plocher wrote, "I have grown kind of fond of this grape for its beauty and spicy, fruity (but not labrusca) flavor, not to mention its hardiness. It was one of the few varieties that bore fruit this year following our –41° winter." Not considered a wine grape unless you like a strong-flavored brew. Vigorous vine. Z3.

253A Chontay, $13.00

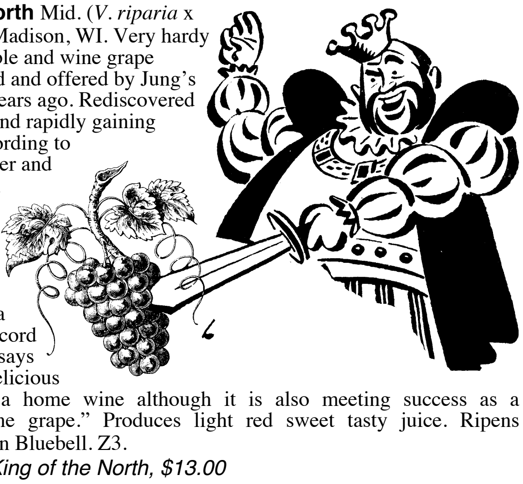

OYSTER RIVER WINE CO.
Villager White
Table Wine
Alc. 11.5% by vol.

Frontenac Mid-Late. MN 1047 (*V.r.* 'RIP 89' x Landot 4511) U Minn, 1996. A highly praised cold-hardy red-wine grape that is also excellent for fresh eating. Recommended for dry full-bodied Merlot- or Bordeaux-style table wines, rosés and ports. Very large loose clusters of small berries. Intense juice color, low tannins, high sugar and high acid content. In *Notes from the North*, John Marshall adds, "Though the sugar may rise to impressive levels early in September, the grapes are not nearly ripe. Ignore the sugar levels and wait until September 20th. The acid will drop and the wonderful black-cherry flavors that will make this grape famous will multiply." Vigorous productive disease-resistant vines. Z4/5.

254A Frontenac, $13.00

Frontenac Blanc Mid-Late. U Minn, 2012. An exciting new introduction from the University of Minnesota. These grapes are yellow-gold and make a full-bodied white wine with moderate to high acidity. A naturally occurring cross between Frontenac and Frontenac Gris, distinctly different with all of the same great traits: productive, vigorous, disease-resistant, hardy. In a recent NPR broadcast, reporter David Sommerstein tasted this wine at Coyote Moon in northern New York and commented, "It's aromatic with peach and nectarine, but also caramel smooth…a totally new grape…exactly what the next generation of wine drinkers is seeking—diversity and adventure." Now in trials in a few of our Maine nurseries. We'll let you know after we've corked our first bottle! Z4/5.

255A Frontenac Blanc, $13.00



King of the North Mid. (*V. riparia* x Concord-type) Madison, WI. Very hardy dark-skinned table and wine grape originally named and offered by Jung's Nursery many years ago. Rediscovered in recent years and rapidly gaining popularity. According to Minnesota grower and winemaker John Marshall, King of the North is the one variety he recommends for both a good table grape and a decent red "Concord style" wine. He says that it's "very delicious particularly as a home wine although it is also meeting success as a commercial wine grape." Produces light red sweet tasty juice. Ripens slightly later than Bluebell. Z3.

256A King of the North, $13.00

Grapes prefer soils with pH of 5.8–7.0. For the best grapes, provide moderate fertility, very well-drained soil and full sun. Every June we thoroughly weed the grapes under our arbor, then mulch very liberally with old hay. After that, we don't do a thing to them except harvest in late summer and prune in late fall. Space 8–12' apart in rows 8–12' apart.

Spread the roots out, planting the crown even with the soil surface. Do not prune roots. Pack soil well. Water and mulch well. After frost danger has passed, prune vines back to 3–5 strong buds. Continue to mulch annually with hay or straw. Every few years fertilize liberally with granite dust.

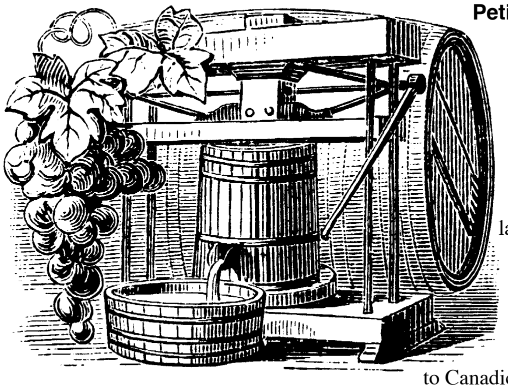
Grapes require annual pruning and a trellis or arbor, though in Italy they still sometimes grow them in maple trees. All systems for growing grapes involve removal of most growth in spring or late fall to encourage new canes, as fruit is produced on these canes. There are many systems for training grapes. Some are suited to laying down and covering tender varieties over winter. Any good book on grape growing will show you several options. We suggest the Hudson River Umbrella or the Four-arm Kniffin system. The University of Maine offers a series of videos demonstrating different grape-training techniques. Go to umaine.edu/highmoor/ and click on "videos."

People sometimes ask about wire. The current vineyard standard is high-tensile-strength class III galvanized steel wire. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 pounds of 11 gauge measures about 2600 feet. 100 pounds of 12.5 measures about 3800 feet.

Grapes rated for Zone 5 can be grown in Zones 3 and 4. To prevent winter injury, remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover. This task is neither difficult nor time-consuming, and does work.

Marquette Mid-Late. MN 1211 (MN 1094 x Rivat 262) U Minn, 2006. This grape has northern winemakers buzzing with excitement! The best variety this side of the Atlantic for a pinot noir–style red table wine. One parent, MN 1094, has both *V. riparia* and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with pinot noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely hardy. And there's more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins add complexity. Small-medium bluish-black berries in small to medium-sized clusers. Ripens a few days before Frontenac. Z3.

257A Marquette Grape, $13.00



Petite Jewel Early to Very Early. ES 3-20-36 (MN 78 x Canadice) Elmer Swenson introduction, MN, 1999. Small pink or light red seedless grape with exquisite flavor. Somewhat larger than a garden pea. PA grower Ike Kerschner wrote in an email to John, "The flavor in my opinion is superior to Canadice and possibly the best flavored out of my collection of most of the available eastern seedless grapes.…When selling Petite Jewel [at farmers' market] there is always a reluctance by buyers because of the small berry size. One taste convinces even the most skeptical customer." John Marshall called Petite Jewel "very tasty, even remarkably tasty." No objectionable seed remnants in the fruit. Small loose clusters. While Minnesota growers have largely given up on Petite Jewel because of its marginal hardiness, it should be worth trialing from central Maine south. Probably hardier than Reliance, though not as hardy as Somerset. Z4-5.

258A Petite Jewel, $13.00

Reliance Seedless Very Early. Arkansas 1163 (Ontario x Suffolk Red) Arkansas Stn, 1982. Still the highest-quality seedless grape for the North, although the recently released Somerset Seedless is looking pretty nice. Good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1–2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar). While the literature cautions about Reliance's disease susceptibility, our vines have performed well and have remained free of disease. Z4/5.

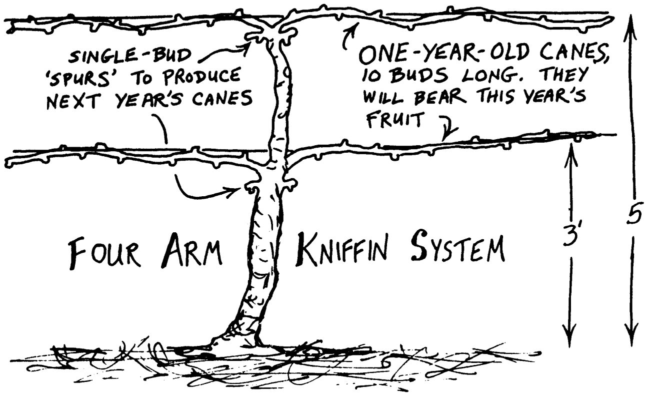
259A Reliance Seedless Grape, $13.00

Somerset Seedless Early. ES12-7-98 (ES5-3-64 x Petite Jewel) Elmer Swenson intro. Although not as hardy as Beta, Bluebell or Chontay, Somerset is likely the hardiest seedless grape available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddish-golden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4.

260A Somerset Seedless Grape, $13.00

Growing Grapes on an Arbor

Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. Every winter remove 70-90% of the the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.


SINGLE-BUD 'SPURS' TO PRODUCE NEXT YEAR'S CANES
ONE-YEAR-OLD CANES, 10 BUDS LONG. THEY WILL BEAR THIS YEAR'S FRUIT
FOUR ARM KNIFFIN SYSTEM
3'
5'

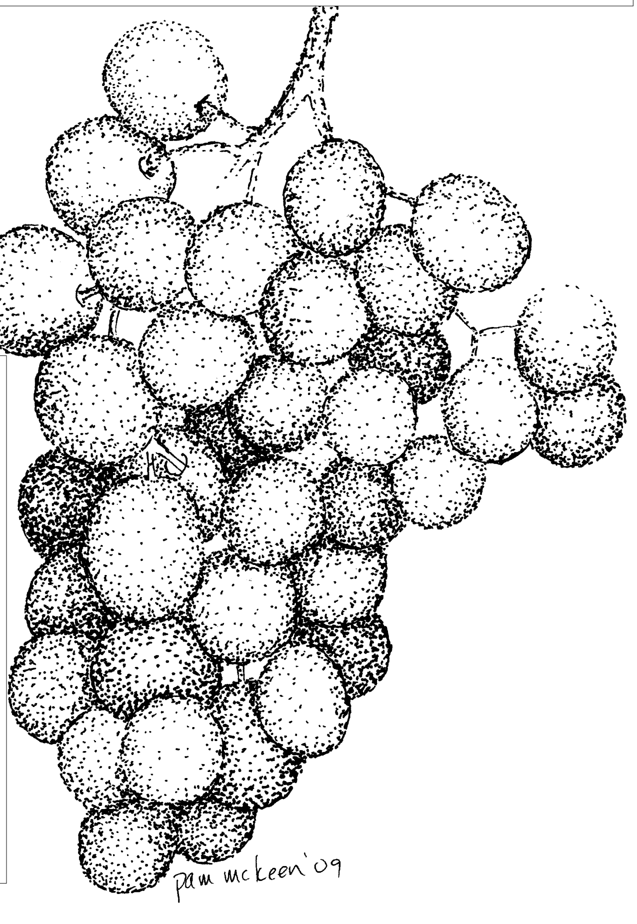
Pruning Grapes in the Four-Arm Kniffin System

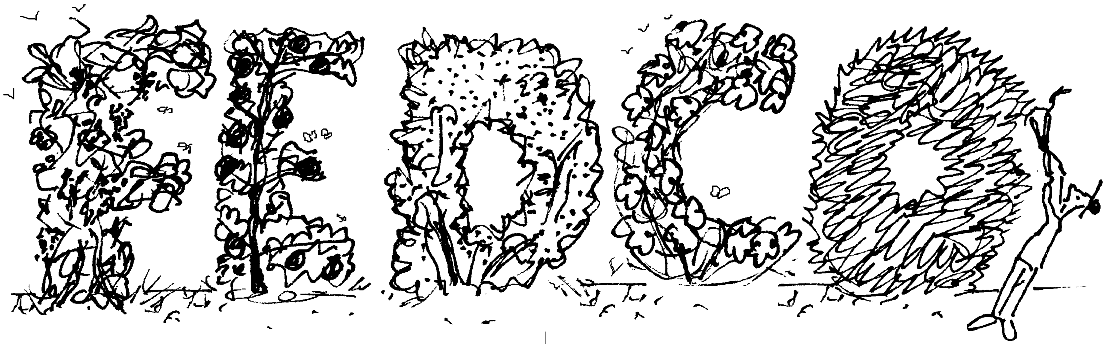
First year: Cut plant back when planting to a single stem, 6" long with two to three buds, after the last danger of frost has passed.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4-6 buds near each wire and remove others.

Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, one in each direction. Cut these four canes back to 10 buds each. Cut the remaining four canes back to one or two buds each.

Later years: In the spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining four back to two buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit (leave more buds) or larger size (leave fewer buds).





Thinking Outside the Boxwood: Hedges for Conservation, Diversity, Food and Beauty

Pleach, raddle and plash… Along pasture lines throughout England, hawthorn hedgerows seem to go on forever. These impenetrable fences were twisted together with woody stems (pleached, plashed or raddled) and laid in certain patterns resulting in some of the branches grafting to each other. Not even the boldest livestock would think of busting through these thorny barriers. In the county of Devon, 33,000 miles of hedges—some over 800 years old—have been preserved, thanks to the continuity of traditional farming. These hedges host 600 species of flowering plants, 1500 species of insects, 65 species of birds and 20 species of mammals while also serving as berry gardens, defining property lines and providing coppice wood for cooking and heating. Evidence suggests that people have planted hedges since the Bronze Age, maybe even earlier.

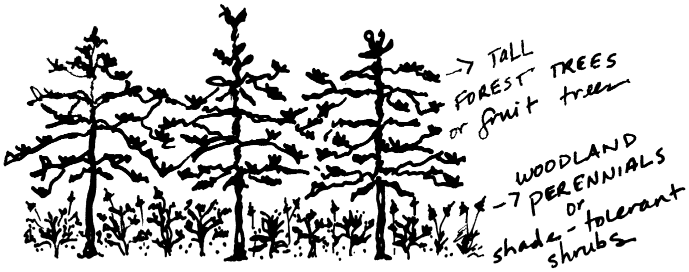
Natural Hedges and Modern Agriculture Take a walk along the edge of a field where it meets the woods. You'll find plants growing along this boundary that don't grow on either side: blackberries, juneberries, hazelnuts, elderberries and more. They escaped the mower blade and are enjoying the benefits of a nice sunny field. A convergence between two ecosystems, these natural edges are very high in species diversity. Leaving native perennials, shrubs and trees intact along the edges of our lawn, field or house creates natural "shelterbelts" that benefit our landscape, especially in areas where wildlife and biodiversity are threatened by development and monoculture. U.S. farmers are recognizing these benefits and using hedges in the form of alley cropping, silvopasture and riparian forest buffers in their agroforestry practices.

Hedges can be so much more than symmetrical rows of level-topped yews or a single line of conifers. While these are respectable options, we think it's fun to mix it up and do something a little different.

Hedges can be:
- straight lines, wavy lines, undulating layers or zigzags
- single- or multi-species plantings
- free form or sculpted
- annual or perennial or a combination of both
- tall or low, erect or rangy

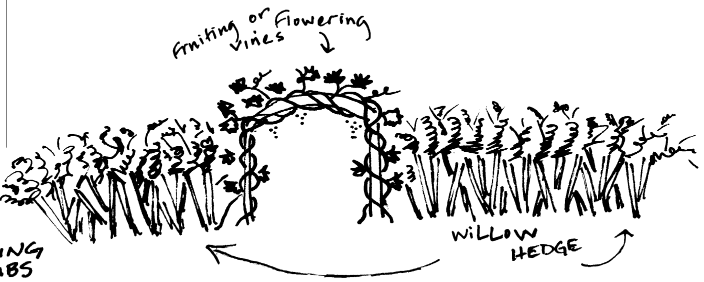
Hedgerows Provide:
- forage for birds, bees, butterflies, hummingbirds, moths, beneficial insects and humans
- protection for nesting birds and migratory animals
- erosion control and water conservation
- privacy screens, windbreaks, mazes or secret gardens
- texture, aroma, character and color in a cultivated landscape
- renewable material for kindling, crafts, bouquets and wood chips

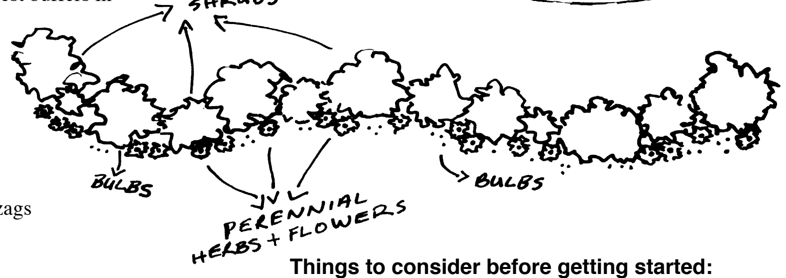
Mix and match and layer! Consider combining:
- nuts, fruits, flowers, vegetables and herbs
- early, mid- and late-season flowering plants (give the bees a hand!)
- dark and light contrasting foliage (like evergreens with deciduous trees)


-> TALL FOREST TREES or fruit trees
WOODLAND -> PERENNIALS or shade-tolerant shrubs

What to plant in your hedgerows?
In England, traditional hedges often combined:
- hawthorns
- mountain ash (rowan)
- willow
- crabapples
- roses
- heather

Fedco grower Sharon Turner of Washington, ME, specializes in designing hedges. A few of her favorites in layered plantings are:
- Spicebush
- Abelia
- Juniper
- Highbush cranberry
- Nanking cherry
- Smoketree
- Hydrangea
- Elderberry
- Forsythia
- Buttonbush for damp areas
- All Cornus species including dogwoods and cornelian cherry





Things to consider before getting started:
- How much space do you have?
- What purposes do you want your hedge to serve?
- Which sizes and habits do you wish to display?
- How much pruning do you want to do…or not do?

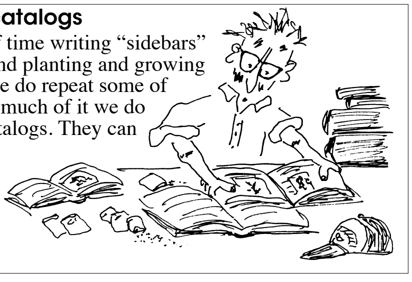
Carefully choose your site. Some plants fill in by colonizing suckers and may be best some distance away from your veggie garden. Planting near a road? Choose salt- and pollution-tolerant trees.

Layering: think about planting taller trees in one row flanked by shorter items on either side. Remember, forest trees can be kept smaller by pruning. Be creative. There are no rules. Experiment!

If possible, take some time to prepare a site by cover-cropping in advance. If not, just dig holes, plant, mulch heavily and water until the plants become established. In time, they will fill in and suppress surrounding weeds.

Seedlings make great hedge plants; more about seedlings on the next page. For pollinator-friendly plant suggestions, see page 18.

Save your Old Fedco catalogs
Every year we spend a lot of time writing "sidebars" and other tips on selecting and planting and growing the plants we offer. While we do repeat some of that information every year, much of it we do not. Please keep your old catalogs. They can be a good reference. Maybe someday you can sell them on eBay and pay for your retirement! Much of this information is also on the fedcoseeds.com website.



Seedlings or cultivars?

Each year we offer a combination of cultivars (named plants such as 'Afterglow' winterberry or 'Adams' elderberry that are propagated clonally) and seedlings (germinated from seed) throughout the catalog. This year, we decided to offer more seedlings than usual. Why? Seedlings are ideal for enhancing biodiversity. When grown from seed, no tree or shrub is genetically identical to any other of its species even though its defining features will remain similar. It is increasingly important to plant seedlings as they are becoming scarcer in the nursery trade, where cookie-cutter cultivars are becoming the norm. The more diversity there is within a species the more resilient and adaptable to change it becomes, therefore making it less susceptible to some pests and diseases.

This is not to say one should not plant cultivars and named varieties. They are quite desirable when you are looking for particular characteristics such as plant size or shape, fruit quality or flower color. We don't sell lilac seedlings because most customers want to know whether their lilac is going to be purple or white or pink or blue. To ensure you get the color you want, we offer cultivars, which are propagated asexually. For example, lilacs are propagated by cuttings, and other cultivars, such as tree fruit and crab trees, we propagate by grafting. Without grafting, no one would be able to enjoy the distinct flavor of an Ashmead's Kernel or a Cox's Orange Pippin and thus our favorite heirloom apples would not exist today. On the other side of the coin, by planting seedlings of Aronia or highbush cranberry, we can enrich our natural landscapes for all creatures, not just us!

Cultivars and varieties

Cultivar is short for 'cultivated variety.' A cultivar is a plant that has come about through some process of breeding; it doesn't occur naturally in the wild.

A **Variety** is a plant that occurs naturally in the wild and is chosen for commercial propagation to maintain its genetic characteristics.

In the nursery trade, the terms 'cultivar' and 'variety' are mistakenly used interchangeably. Both cultivar and variety names follow the botanical name (Genus species) and are enclosed in single quotes.

In the tree and shrub world, most cultivars and varieties are propagated clonally by cuttings or grafting. When there is no variety or cultivar name after the botanical name, the plant is most likely grown from seed. We often refer to these as "the species" of a plant, or as seedlings.

We offer cultivars and varieties when we think we should and seedlings whenever we can. Variety is the spice of life! We will continue to help you create a diverse landscape while remaining aware that you may want your roses red and your violets blue.

Some benefits of seedlings:

- Every seedling is genetically different; you never know what kind of unique traits you'll end up with. You might even find a new variety that you could name after your spouse, like Beta!
- Propagation by seed often produces plants of a more resilient, tough and adaptable nature with resistance to pests, disease and stress. Survival of the fittest!
- Research shows that as wild plants have been bred over time, many of their phytonutrients have been bred out of them in favor of uniformity, sweetness and appearance. Plants with a bitter or sour flavor often contain the highest amounts of phytonutrients. Yet another reason to grow Aronia, Nanking cherry and cranberry.
- Seedlings are also believed to be more medicinally potent than plants propagated by cuttings.
- Often, seedlings are less expensive than cultivars, which is great for mass plantings when the goal is naturalizing a large area or creating a wildlife hedge.

Some benefits of cultivars:

- Consistency. Very important with fruit-producing plants when particular flavors, yields or disease resistance is desired. Many cultivars produce fruits and nuts that are larger or have superior flavor than those of seedlings.
- In cases where disease is a serious threat for a particular species, such as Dutch elm disease or chestnut blight, it is important to have cultivars bred for resistance.
- Many fruits do not produce seed that is true to type, such as apples and stone fruits, so the only way to reproduce our favorite fruit varieties is through grafting or cuttings.
- Some nut trees, like hickories, come into bearing age much earlier when they are grafted clones.
- Thousands of unique and interesting plants have been bred through hybridization and complex breeding, and often these must be reproduced through cuttings. Examples of these would be many of our lovely roses, lilacs and daylilies, amongst countless others.

How does this pollination stuff work, anyway? The nursery trade contains a lot of conflicting information regarding plant pollination. Credible sources contradict each other and it can leave your head spinning. One catalog will tell you that a certain tree is self-pollinating, another will tell you that you need to plant at least two. We feel that this is a reflection of a simple concept: nature doesn't walk a straight line. Some technically self-fertile plants don't do so well setting fruit alone; other supposedly self-infertile plants set fruit heavily even when they are apparently isolated from their buddies. Then you add soil types, weather, cultural practices…oh my. Isn't it good to be reminded of how little we really understand about nature?

Our catalog notes about pollination requirements for each plant are primarily based on our own observations and info we've gleaned from the experts. When there is any doubt, we suggest multiple plantings to ensure fruit sets. Here are a few definitions to help shed light on some commonly used botanical terms:

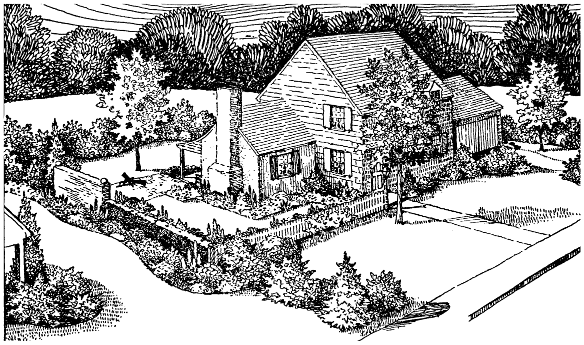
Self-pollinating, **self-fertile** and **self-fruitful** all mean the same thing. You can plant a self-fertile tree and expect it to pollinate itself and set fruit alone (for example, peaches, pie cherries, apricots). However, many self-fertile trees' fruit sets are enhanced with multiple plantings (elderberries and amelanchiers).

Self-sterile or **self-infertile** means that another tree of a different cultivar or variety is needed to set fruit (cross-pollinate). This is the case with most apples.

Monoecious (from Greek meaning 'one household') plants have their female and male parts on separate flowers both together on the same plant. In most cases, these plants are self-fertile, but not always! (Black walnuts are monoecious but the male flower releases pollen before the female flowers open, so having two plants is better than one).

Dioecious (meaning 'two households') plants have either all male or all female flowers on separate individuals. You would need to plant one female and one male to achieve pollination. When you buy unsexed seedlings, you generally have a 50-50 chance of getting one gender or the other (ginkgo, spicebush, bayberry, sea buckthorn).

Bisexual or **Perfect** flowers contain both male and female components within the same flower. Some plants with perfect flowers will be self-fertile, some will not. Often, specific cultivars or varieties have perfect flowers but they cannot pollinate themselves and need other varieties to assist them (apples and blueberries).



Trees, Shrubs, Roots and Vines

Trees, shrubs, roots and vines all intermingle, interact and cooperate with one another to make the landscape what it is—the ultimate polyculture—the model to which we aspire in our own yards. We offer the best of the best for you to create your own landscape. See our chart on pages 50–51 for information at a glance about the roles that these plants can play.

In the past we've attempted to separate our offerings into categories and we were never quite satisfied. When does a small tree become a shrub? When does a large shrub become a tree? What about the roots that have vining tops? How do we categorize beautiful flowering trees that attract wildlife and produce fruit for the kitchen table? Where do we put the edible ornamentals? The ornamental edibles? Finding your favorite plant might seem difficult at first. But fret not: they are alphabetized by botanical (Latin) name. And you can find them all listed by common name as well as Latin in the **index inside the back cover**.

All the listings in this section are well-rooted bare-root plants.

ME Grown = grown in Maine by a member of the Fedco growers coop

***Abies balsamea* Balsam Fir** 45-75' Called *popakw*, the pitch tree, in Wabanaki. One of the most abundant of all our native conifers. Twigs, inner bark, needles and sap are all medicinal. Small "blisters" contain a transparent aromatic resin that native peoples used as an inhalant for headaches and congestion and as a salve for cuts and arthritis. Needle tea is rich in vitamin C. The fragrant boughs are a favorite for wreaths; the needles used in scented pillows and potpourri. The best of all conifers for a Christmas tree! Narrow, conical, smooth-barked. Prefers well-drained moist acid soil. Avoid polluted areas. Semi-shade tolerant, slow-growing. Good hedge or specimen tree, songbird nesting area or rabbit thicket. Native Labrador to upper eastern U.S. Z3. (12-16")

261A Balsam Fir, bundle of 5 for $16.50

***Acer rubrum* Red Maple** 50-60' Also known as **Swamp Maple** or **Soft Maple**. Every spring we await the magical moment when the red maple's showy dark red flowers appear, long before any leaves. Excellent yard tree, usually has a central leader and an upright growth habit, compared to the bushier sugar maple. In the fall the foliage turns electric orange, yellow and brilliant red. Does not have the weak branching problems of silver maple or the invasive qualities of the abominable Norway maple. Sometimes tapped for sap in spring. During the excellent 2011 sugaring season, Jen's red maple produced a sap-to-syrup ratio nearly on par with sugar maples! Inner bark can be used medicinally in teas. Transplants easily. Prefers moist acid conditions but is adaptable to dry locations. Note that this is *not* the red-leaf maple *A. platanoides* 'Crimson King'. Native to eastern North America. Z3. **ME Grown**. (1-3')

262A Red Maple, $10.00

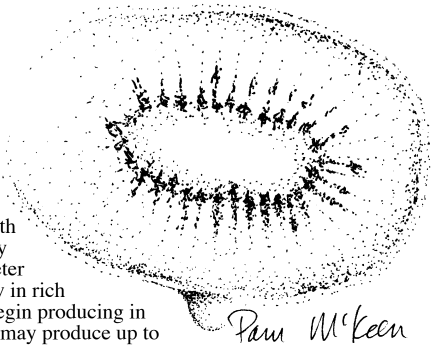
***A. saccharum* Sugar Maple** 50-100' Largest of our native maples, also known as **Rock Maple**, valued for shade, syrup and lumber. Traditionally a pair of sugar maples was planted in front of a farmhouse on the inhabitants' wedding day. Those "wedding trees" still grace many Maine front yards. Famous for its yellow, gold, scarlet and crimson fall foliage and its fresh sap that's boiled down to make real maple syrup. Huge upright spreading form with light grey bark. Shade tolerant, making it easy to interplant in existing woods. Prefers moist, well-drained soils. Cold hardy. Sensitive to salt and air pollution; not a good city tree. Native Quebec to Gulf Coast. Z3. **ME Grown**. (2-4')

263A Sugar Maple, $16.00

Kiwis are dioecious vines, meaning male and female flowers are on separate plants, so you must plant a male plant to pollinate the fruiting female plants. They are extremely vigorous and require a rugged trellis or arbor and heavy pruning. Plant vines 10' apart each way in moist but well-drained soil. Kiwis are adaptable and tolerate a wide range of soil types (pH 5.0–6.5). One male will pollinate several females as long as they are within approximately 30' of the male. Although the vines are quite hardy, the flowers and foliage are frost sensitive. Planting on a northern exposure will delay budding in spring and reduce risk of frost damage. Protection from winter winds and intense winter sun is also recommended. Mulch with hay or wood chips. On poor soil fertilize with compost annually.

On a trellis: Train a single trunk to the trellis wires and then train two permanent 7–10' cordons (arms) off the trunk. Each winter remove at least 70% of old growth, leaving a dozen or so one-year-old laterals. That year's fruit will develop on fruit spurs growing off these one-year-old canes (laterals). On extremely rampant vines, summer pruning may be required to keep the vines from choking out your farm.

On an arbor or gazebo: Once established, prune 70% of the old growth each year and leave some new canes for this year's fruiting. *The Pruning Book* by Lee Reich is an excellent reference for pruning kiwis.



***Actinidia* Hardy Kiwi** Productive twining vine climbs 20' or more and produces delicious thumb-shaped thumb-sized kiwi fruits in late summer, so delicious that you might not be able to stop eating them! Unlike supermarket kiwis, the skin is smooth and edible. The longer they ripen on the vine, the sweeter they become. Easy to grow in rich well-drained soils. Will begin producing in 5–9 years. Mature plants may produce up to 100 lbs of fruit. Once vines are established, adequate pruning (see directions above) will significantly increase yields. No significant pest or disease problems. Both male and female plants required for fruit. One male will usually pollinate at least three females of the same species. The females bear the fruit. We offer two species. Arguta ripens around mid-September, has large fruit and is more vigorous than kolomikta. (Argutas can just about pull down a tree.) Kolomikta ripens around mid-August, has small fruit and is less vigorous but more cold-hardy than arguta and should thrive even in the northernmost districts. Native to eastern Asia. (well-rooted 2-3 yr vines)

***A. arguta* 'Frenchman's Bay' Female.** Years ago Mark Fulford found this plant growing on an abandoned estate near Bar Harbor, about 500' from Frenchman's Bay. He liked the vigorous hardy vines and the fruit's large size and excellent flavor and…*voila*! Here they are thanks to local propagators Bill and Lauren Errickson of Singing Nettle Farm. Z4. **ME Grown**.

264A Frenchman's Bay, $14.50

***A. a.* 'Michigan State' Female.** Michigan State University. Grower Tom Vigue calls them "sweet and most highly luscious." A dynamic combination of sweet and sour. Although they may sometimes make you pucker up, the overall experience is joyous and delicious. Larger than other varieties. Z4.

265A Michigan State Female Kiwi, $14.50

***A. a.* 'Meader'** Hardy fruitless **male** kiwi suitable for pollinating Michigan State and Frenchman's Bay females. Will not pollinate kolomiktas. Extremely vigorous vines are often grown just for their beautiful dark green ornamental foliage accentuated by reddish-pink petioles (leaf stalks). Z4.

266A Meader Male Kiwi, $14.50

***A. kolomikta* 'Red Beauty' Female.** Fruit is sweet and small, the size of a large grape. Medium-dark green foliage becomes showy red in autumn. Requires Arctic Beauty for pollination. Z3/4.

267A Red Beauty Female Kiwi, $14.50

***A. k.* 'Stanley' Female.** Fruit is sweet and slender with flat shoulders. Ornamental leaves are green with a wine-red tinge. Originated about 30 years ago from a Stanley & Sons Nursery collection and still going strong at Mark's farm in Monroe. The name tag was lost long ago, so we're giving it a good hardy name for easy reference! Requires Arctic Beauty for pollination. Z3/4. **ME Grown**.

268A Stanley Female, $14.50

***A. k.* 'Arctic Beauty'** Fruitless **male** pollinator for Red Beauty and Stanley females. Will not pollinate argutas. Often grown by itself as an ornamental for its beautiful foliage. Young leaves emerge purple, then become variegated pink, white and green, looking as though they've been dipped in cans of paint. Heat, excessive fertilization or shade may reduce the leaf color. White 5-petaled 1/2" fragrant flowers. Z3/4.

269A Arctic Beauty Male Kiwi, $14.50

Fedco Trees 2014

PO Box 520 Waterville ME 04903

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Delivery Options ✓ **choose one:**

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- ☐ **Pickup** at Tree Sale in Clinton. Pay no shipping.
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Substitutions (see p. 3)	Yes	No
I will accept a similar variety.	☐	☐
I will accept similar rootstock.	☐	☐

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Small & Light	$10.00	over $72.00, pay 14% of adjusted total

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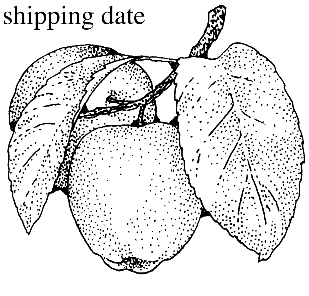
- Consider donating your refund to MOFGA (the Maine Organic Farmers & Gardeners Association.)

☐ Donate *all* my refund to MOFGA ☐ up to $5.00 ☐ up to $2.00



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Exp. Date ☐☐☐☐

Fedco Trees 2014: Trees, Shrubs & Plants

	Item #	Number of pkgs.	Number of plants	Description	Price per package	Total Price
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					Subtotal (carry to other side)	

If you are ordering more than 28 items, you may copy this page or our format and submit as many pages as you need.

If you order *only* item numbers beginning with L, you qualify for our reduced shipping rate. See other side for details.

Suggestions:

Fedco Trees 2014

PO Box 520 Waterville ME 04903

from mailing label CC- ____________________

Ordered by:

Farm or Group Name ____________________

Name ____________________

US Mail ____________________

Town ____________________ St ______ Zip ______

Deliver to:

UPS (include your road name) ____________________

Town ____________________ St ______ Zip ______

contact: phone ____________________ email ____________________

Order online
www.fedcoseeds.com
Check product availability.
Download catalogs, additional order sheets and the scionwood order form.

Delivery Options ✓ **choose one:**

- ☐ **Ship** in late March or early April.
- ☐ **Pickup** at Tree Sale in Clinton. Pay no shipping.
- ☐ **Ship** around April 30. (Add $15 fee to shipping charges.)

Substitutions (see p. 3)	Yes	No
I will accept a similar variety.	☐	☐
I will accept similar rootstock.	☐	☐

Volume Discounts
(only orders received by 1/17/14)

Subtotal over $200	take 10%
over $400	take 15%
over $1000	take 20%

* Fedco members qualify for a 1% discount on all purchases. See page 7 for more information.

Shipping Charges: (we ship by UPS or Priority Mail, our choice)

	minimum	if your **Adjusted Total** is
Continental United States	$20.00	over $143.00, pay 14% of adjusted total

Orders to **Alaska** go Priority Mail; be sure we have a *Postal Address*

	minimum	if your **Adjusted Total** is
Priority Mail	$25.00	over $125.00, pay 20% of adjusted total

Small & Light: All your stock numbers begin with **L**.

	minimum	if your **Adjusted Total** is
Small & Light	$10.00	over $72.00, pay 14% of adjusted total

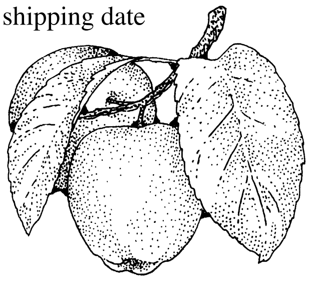
Subtotal from reverse	
Volume Discount	–
* **1% Member Discount**, from Subtotal	–
Adjusted Total	=
ME residents & pickups add 5% **Tax**	+
Shipping	+
Grand Total	=

Make checks payable to **Fedco**

Final order deadline March 7, 2014

- **Complete ordering information on page 3.**
- For early delivery of rootstock or for scionwood, download scionwood order form from our website or send us a SASE.
- If you require Priority Mail delivery, minimum shipping charge is $25 or 20% for orders with an adjusted total over $125.
- We will add a $10 handling fee each time you ask us to make adjustments after we have received your order.
- We ship between March 27 and April 10; we will add a $15 handling fee if you specify a particular shipping date within this period or if you choose our late shipment around April 30.
- Consider donating your refund to MOFGA (the Maine Organic Farmers & Gardeners Association.)

☐ Donate *all* my refund to MOFGA ☐ up to $5.00 ☐ up to $2.00



We accept Visa, MasterCard, American Express or Discover Card ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Exp. Date ☐☐☐☐

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(carry to other side)

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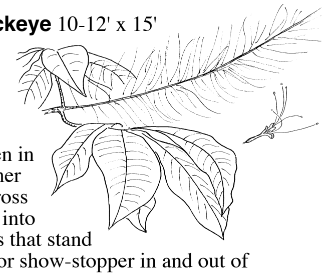
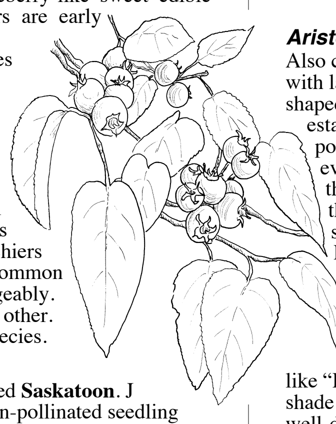


***Aesculus parviflora* Bottlebrush Buckeye** 10-12' x 15' Irregular large wide multi-stemmed suckering shrub with beautiful horse chestnut–like foliage and jaw-dropping midsummer flowers. Will spread to create large multi-leveled colonies. Foliage is medium to dark green, turning yellow-green in fall and always disease-free. In early summer thin green asparagus-like spears appear across the surface of the colony and then open up into spectacular 10–18" wispy feathery panicles that stand upright above the foliage in a mass. A major show-stopper in and out of bloom. Grows in sun but it will thrive in the shade. Adaptable, prefers well-drained but adequately moist soil. Native to southeastern U.S. Z4. **ME Grown.** (2-4')

270A Bottlebrush Buckeye, $16.25



Amelanchier Also called **Juneberry**, **Parsonberry**, **Serviceberry**, **Saskatoon**, **Shadblow**, **Shadbush** and **Shad**. Very hardy genus of spring-flowering shrubs and small trees with blueberry-like sweet edible berries. Beautiful fragrant 5-petaled white flowers are early harbingers of spring in Maine. Purplish-black sweet berries good in pies, cobblers, jellies, jams, smoothies and cakes. Berries are about the size of a lowbush blueberry, or a bit larger, and seedier. Historically used by native peoples to make pemmican. Popular with wildlife. Nice red-orange fall color. Thrives along stream beds as well as on rocky slopes. Tolerates partial shade, salt, pollution and wet spots but not standing water. Considered to be self-fruitful but we recommend planting with other Amelanchiers to ensure pollination. Note: taxonomically, Amelanchiers are a point of confusion in the nursery trade where common names and even botanical names are used interchangeably. Furthermore, these plants easily hybridize with each other. Below, we've highlighted salient features of each species. **ME Grown.** (1-3')

***A. alnifolia* 'Regent'** 4-6' x same. Commonly called **Saskatoon**. J Candrian introduction, Faribault, MN, 1997. An open-pollinated seedling originating near Regent, North Dakota. Compact shrub form fruits in mid-July in central Maine. This variety selected for attractive foliage and prolific purple-magenta berries which are excellent for fresh eating. Makes a nice hedge. For best fruit sets, plant in fertile soil and full sun. Native to northwestern North America. Z2.

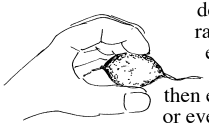
271A Regent Juneberry, $15.00

***A. a.* Juneberry Seedlings** 4-10' x same. Multi-stemmed shrub with profuse smallish white flowers (3/4" diameter) in spring and delicious nutritious berries in early summer. Some say the seeds taste like little almonds. Birds love the berries as much as we do. Juneberries are still an uncommon fruit you won't find in your local store, so plant a few of your own and don't miss out on this wonderful unique tasty treat. Same cultural requirements as Regent. Keep pruned to form an edible hedge. Native to northwestern North America. Z2.

272A Juneberry Seedling, $14.00
272B Juneberry Seedlings, bundle of 5 for $60.00

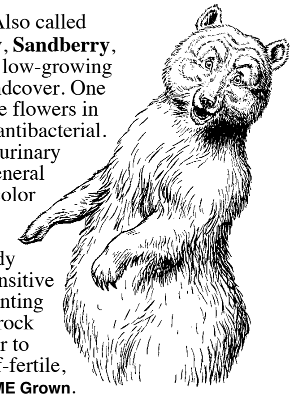
***A. laevis* Allegheny Serviceberry** 15-25' The most common Amelanchier in Maine. The unique purplish-orange bronzed color of the unfolding leaves on this understory tree is a favorite spring sight. Pendulous white blossoms precede the young leaves and are followed by berries that ripen in midsummer. Referred to as **Shad** or **Shadbush** by old-timers because the blossoms coincide with spring shad run in certain Maine streams. Likes well-drained acid soils along the edge of fields, streams and roads. Native midwest to eastern U.S. and Canada. Z2. **ME Grown.**

273A Allegheny Serviceberry, $15.00



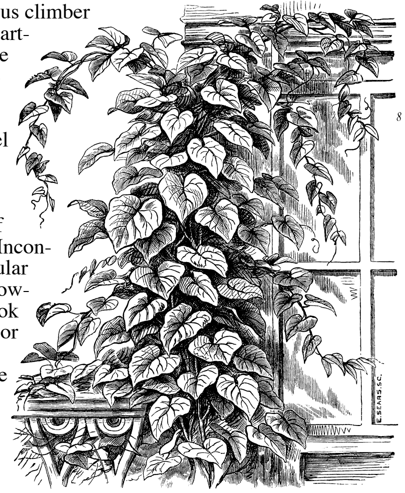
***Apios americana* Groundnut** Nitrogen-fixing leguminous perennial twining vine with edible tubers. Grows to about 5' long. Roots grow 1–6" deep and have periodic swellings (the groundnuts) that range from marble size to larger than a golf ball. These edible tubers can be harvested at any time of the year. Delicious, high in starch and protein. Peel them first, then eat them boiled, roasted, baked, mashed, sliced, diced or even puréed. Not recommended raw. Will keep a month or more in the fridge or root cellar, or dry them and they keep forever. An essential food for Native Americans for hundreds of years; also essential to the survival of the first European settlers in New England. Flowers appear in late August in central Maine. Don't miss them: they are small but rather astonishing. From a distance they look brownish, but up close they are a combination of maroon, pink and violet. Followed by 2–4" bean pods. Prefers moist sandy soil. Full to partial sun. Keep it out of your garden as it will spread. Can be vigorous and requires a trellis of some sort. We have ours growing on birch branches stuck in the ground and then woven together. Establish a patch and let it go. Native to river banks and flood plains, southern Canada, eastern and midwestern U.S. Z3. **ME Grown.** (tubers)

L274A Groundnut, bundle of 5 for $18.50



***Arctostaphylos uva-ursi* Bearberry** Also called **Kinnikinick**, **Hog Cranberry**, **Mealberry**, **Sandberry**, **Mountain Box** or **Bear's Grape**. Delicate low-growing beautiful glossy evergreen spreading groundcover. One plant can spread to 15'. Small pinkish-white flowers in spring. Leaves are diuretic, astringent and antibacterial. Used before modern antibiotics in treating urinary infections. Tea may also have value as a general tonic. Small bright red drupe-type berries color up in late summer and persist into winter. Edible but rather dry and mealy (best to leave them for the bears). Prefers poor sandy infertile acid soils, tolerates salt. Can be sensitive to root disturbance, thus finicky in transplanting and may be slow to establish. Beautiful in rock gardens. Set plants 1–2' apart. No need ever to prune or fertilize. Sun or partial shade. Self-fertile, native to North America and Eurasia. Z2. **ME Grown.** (well-rooted transplants)

L275A Bearberry, $14.00

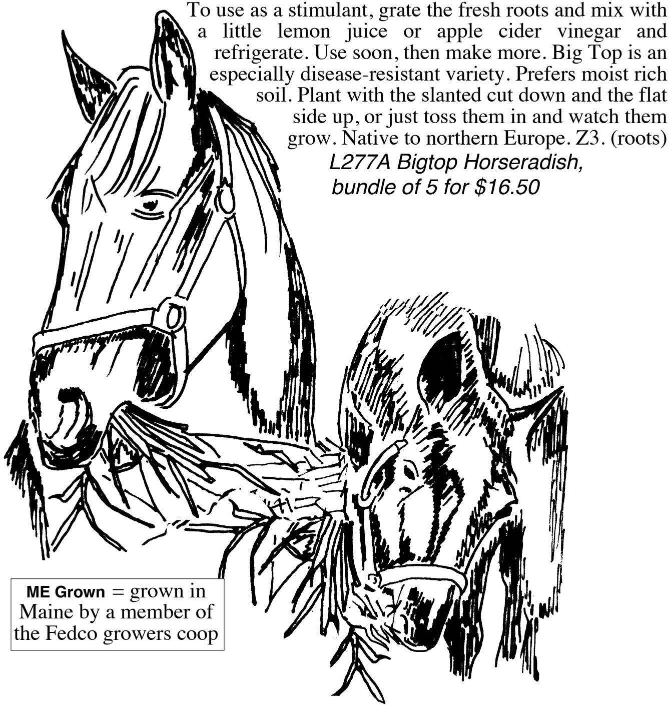


***Aristolochia durior* Dutchman's Pipe** 20-30' Also called **Pipe Vine**. Vigorous climber with large wonderful 4–10" heart-shaped dark green leaves. Once established, it will cover the porch, trellis or gazebo every summer. Beware though—one vine can peel the shingles right off the side of your house! Provides all the privacy you ever wanted even if you live right in town. Inconspicuous U-shaped tubular white and mahogany flowers in clusters of 1–3 look like "Dutchman's Pipes." Sun or shade. Thrives in shade. Likes well-drained soil with adequate moisture. Native to eastern U.S. Z4. (2-yr well-rooted transplants)

276A Dutchman's Pipe, $15.00

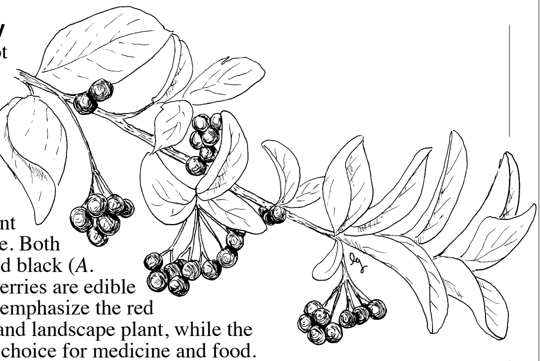
***Armoracia rusticana* 'Big Top' Horseradish** Exceptionally vigorous perennial with large dock-like leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities. Horseradish tea is said to be an effective control for brown rot on stone fruit. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece will produce a new plant. Leaves can be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3–4 months in the fridge. To use as a stimulant, grate the fresh roots and mix with a little lemon juice or apple cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

L277A Bigtop Horseradish, bundle of 5 for $16.50



ME Grown = grown in Maine by a member of the Fedco growers coop

***Aronia* Chokeberry**



Aronia has gotten a lot of press in recent years as a superfruit: it has wonderful medicinal qualities, works well in a range of culinary applications and is an important wildlife plant in the native landscape. Both red (*A. arbutifolia*) and black (*A. melanocarpa*) chokeberries are edible when cooked, but we emphasize the red as more of a wildlife and landscape plant, while the black may be a better choice for medicine and food. Black chokeberries are commercially cultivated for their high levels of antioxidants and myriad health benefits. Both species are small rounded shrubs with blueberry-sized fruit and show-stopping electric-red fall foliage.

Barely palatable fresh (hence the common name), flavor improves considerably when dried, juiced or cooked. Pick when fully ripe. Here's one method of extracting the juice: mash up berries and water (one quart per gallon of berries) but do not cook. Transfer mixture to a jelly bag and wring it out and wring it out and wring it out some more. Give the pulp (and most of the astringency) to the chickens. Drink the juice straight up or diluted, or make wine, jelly, tarts, even pilaf.

Begins to bear fruit in its third year and increases to full yield around five years. Ripens in late July or early August. If not harvested, the berries will hang on the bushes until songbirds eat them in late winter. Will form colonies. Not particularly picky about where it grows. Adaptable to wet or dry areas, sun or partial shade. Free of diseases and insects. Native to eastern U.S. Self-fruitful. Z3/4. **ME Grown.** (1-3')

***A. arbutifolia* 'Brilliantissima'** 6-8' x 3-4' In his book *Best of the Hardiest*, John Sabuco calls red chokeberry "one of our finest native landscape shrubs." Upright multi-stemmed form. Dense clusters of small but showy white flowers with red stamens. Birds love the abundant persistent glossy bright red fruit. With "brilliant" fall foliage, this plant is the best alternative to the invasive burning bush. **ME Grown.**

278A Brilliantissima Red Chokeberry, $13.50

***A. a.* Red Chokeberry Seedlings** 6-10' x 3-6' Each one is genetically unique. Beautiful in mass plantings and borders. Plant several in a hedge and make the birds happy! **ME Grown.**

279A Red Chokeberry Seedlings, $12.50
279B Red Chokeberry Seedlings, bundle of 5 for $55.00

***A. melanocarpa* 'Iroquois Beauty'®** 3x5' or less. Morton Arboretum intro, Lisle, IL. A smaller dwarfed version of the other cultivars, has a more compact habit, suitable for growing in smaller spaces. Excellent black fruit and beautiful foliage. **ME Grown.**

280A Iroquois Beauty Black Chokeberry, $13.50

***A. m.* 'McKenzie'** Bismarck, ND, 2008. 5-10' x same. Cultivar selected for use in farm windbreaks and wildlife conservation plantings. Extremely hardy, they don't mind Z3 winters and wind. This medium-sized shrub fruits abundantly. The name comes from the North Dakota site where the original seedlings were planted in 1976 and still thrive today. **ME Grown.**

281A McKenzie Black Chokeberry, $13.50

***A. m.* 'Viking'** 4-6' x same. Introduced in Sweden. Upright vigorous shrub produces good-tasting berries. High-yielding. **ME Grown.**

282A Viking Black Chokeberry, $13.50

***A. m.* Black Chokeberry Seedlings** 3-6' x same. Each one is genetically unique. Plant several for an attractive edible hedge. **MEGrown.**

283A Black Chokeberry Seedlings, $12.50
283B Black Chokeberry Seedlings, bundle of 5 for $55.00

Plant Sizes

All of our woody plants are well-rooted bare-root plants. Some shrubs will be a bit shorter than these specs and some hardwoods will be much taller. Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.

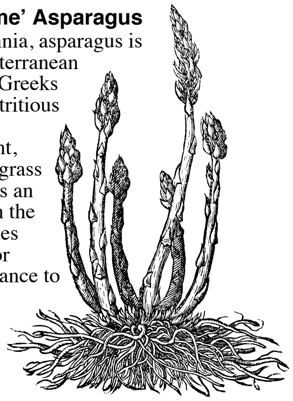
Asparagus requires fertile soil with pH 6.8–7.2 and high levels of phosphorus. John recently visited friends who added Biochar to their soil. Wow, were their roots beefy! Asparagus doesn't like weed competition. Plant when you receive your order or as soon as the ground can be worked. Plant 14–18" apart, 6–10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure. Lay plants with crown up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full. In late fall, remove dead stalks and mulch with 3" of manure.

Second summer: Add lime, rock fertilizers and nitrogen as needed. Control weeds but do not injure crowns.

Later years: Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will support the roots and give you more spears next year. Keep the bed weed-free and mulched heavily.

New research shows that asparagus can be selectively harvested for 2 weeks during the second growing season, for 4 weeks in the third, and a full season thereafter. We recommend caution in harvesting. Before the third or fourth season, only the largest shoots from vigorous plants should be removed, as the young plants need to establish themselves.

***Asparagus officinalis* 'Jersey Supreme' Asparagus** Early. Rutgers U. A spring staple for millennia, asparagus is thought to have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for "English Sparrow-grass Roots." Jersey Supreme, released in 2000, is an all-male hybrid that is more productive than the older all-male varieties. Occasionally females will show up in a planting. Leave them be or rogue them out as you wish. Excellent tolerance to asparagus rust and fusarium crown rot. Produces high yields of large-diameter tender spears in spring. Z4. (large-rooted 1-yr crowns)



L284A Jersey Supreme Asparagus, bundle of 25 for $22.50

***A. o.* 'Sweet Purple' Asparagus** Early. Developed from the Italian heirloom *Violetto di Albenga*. Very large deep-purple stalk with a creamy white interior. Purple asparagus is actually a type of "white" asparagus shown the light. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Turns green when cooked. Z4. (large-rooted 1-yr crowns)

L285A Sweet Purple Asparagus, bundle of 25 for $22.50

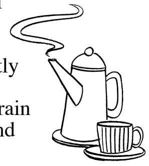
***Betula alleghaniensis* Yellow Birch** 60-75' x 40-50'

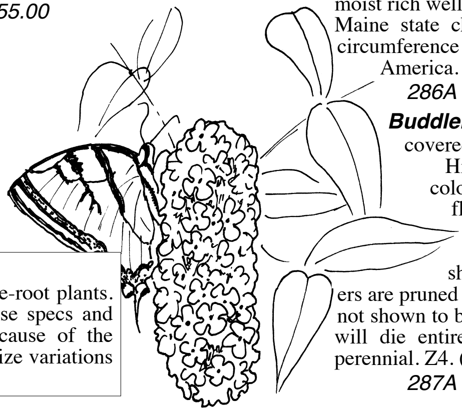
Also called ***B. lutea***. The deep golden-yellow exfoliating bark glows and dazzles with a satiny sheen. Yellow birch can grow to be a grand old tree that bursts through the forest canopy, though they're often modest understory trees snuggling themselves into shady niches. Valuable timber for veneer, furniture and flooring. Traditionally used for sled runners and toboggans. John has several hand planes made of this very hard dense wood. The twigs are a source of oil of wintergreen and make a wonderful tasty pink-colored tea. Rusty yellow fall foliage. Wide-branching rounded form in open; irregular in the woods. Shade-tolerant. Adaptable but prefers moist rich well-drained acid soil. The Maine state champ (once the national champ) lives in Deer Isle: 16.6' circumference and 48' tall with a 91' crown spread. Native to eastern North America. Z3. (2-4')

286A Yellow Birch, bundle of 5 for $30.00

Yellow Birch Twig Tea

The small twiggy ends of yellow birch branches make a delightful tea. Harvest a handful of twigs and remove the leaves. Bring a pot of water to a boil, remove from heat and toss in the twigs. Cover and steep for about 10–15 minutes or until the tea has a soft rosy color and smells faintly sweet, like wintergreen. Strain the tea, serve and enjoy!





***Buddleia davidii* 'Ellen's Blue' Butterfly Bush** 3-5' x same. Discovered as a chance seedling of 'Lochnich' in Ellen Hornig's Seneca Hills, NY, nursery garden. Distinguished by its stunning indigo-colored flowers contrasted against silvery-grey foliage. Spike-like flower panicles are fragrant and loved by butterflies, hummingbirds, bees and many other pollinators. Excellent cut flower, holds up well in bouquets. One of the longest-blooming shrubs, flowering from June until frost, especially if spent flowers are pruned regularly. While considered invasive in milder climates, it has not shown to be such here in northern New England. In Zone 5 and colder it will die entirely to the ground each year, so treat like an herbaceous perennial. Z4. (2-4') **ME Grown.**

287A Ellen's Blue Butterfly Bush, $14.00

***Calluna vulgaris* Heather** Magical, mythical and medicinal evergreen groundcover features a spread of flowers ranging through the colors of the rainbow in late summer. Colorful foliage in autumn. Each year we vary our selection but always offer the hardiest varieties proven to flourish in northern climates. Revered in the British Isles, important medicinally in teas, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope-making, broom-making and even insulation. Flowers attract bees, butterflies and moths, especially when planted in masses or as low-growing hedges. Heather honey is highly prized for medicinal benefit. Recommended as a groundcover, for rock gardens and edges of paths—or for opening the portals to the fairy world! Requires acidic soil and full sun to partial shade. Plant about 18" apart each way and let it spread. Mix peat into the soil to lower the pH if necessary—see planting instructions for cranberries and blueberries. Does not like high fertility or wet spots. Shear every April for best bloom. Native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. Z4. (4" pots)

***C. v.* ‘Bradford’** 12-20" Deep purple flowers from July to October. Lush dark green foliage. Low growing and sprawling.

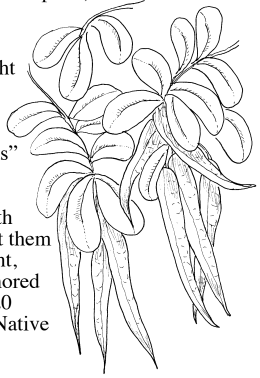
L288A Bradford Heather, $9.00

***C. v.* ‘Firefly’** 18-20" Mauve flowers in August and September with salmon-red foliage which turns to dark brick-red in late fall through winter. Upright habit.

L289A Firefly Heather, $9.00

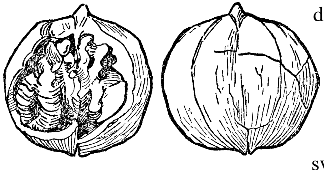
***Campsis radicans* Trumpet Vine** 30-40' Also called **Common Trumpet Creeper** or **Cow Itch Vine**. Wildly vigorous deciduous climbing vine that will cover a stone wall, fence, arbor, even your whole house every summer. Incredibly showy orange-scarlet trumpet-shaped flowers, 2–3" long. If you like orange, you’re in luck. Your bees and hummingbirds will love them, too. Compound leaves emerge late in spring. String bean–shaped seed pods follow flowers. Grey peeling bark is attractive in winter. Not officially considered invasive but will spread by seed, stolons and rooting branch tips. Choose site carefully, provide sturdy support and prune severely every year. Extremely easy to grow. Grows in any soil but avoid permanently wet locations. Salt-tolerant. Prefers full sun but tolerates some shade. Native to the eastern U.S. Z4. (well-rooted transplant)

290A Trumpet Vine, $10.00



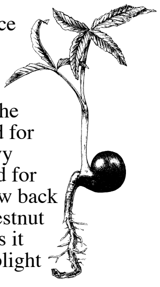
***Caragana arborescens* Siberian Peashrub** 15-20' Nitrogen-fixing cheerful bright green upright multi-stemmed oval shrub well-suited to windbreaks, hedges and borders. Delicate yellow flowers in spring are followed by small seed pods that turn a golden yellow. The pods and the small “peas” are edible; eaten raw, they taste like garden peas, though not as sweet. Makes an acceptable chicken feed. Silvery bark and compound foliage, each with 8–12 small obovate leaflets. Easy to grow; just put them in and let them go. Adaptable to poor soils, drought, salt. Full sun. Maintenance free. Occasionally rumored to be invasive, although ours have stayed put for 20 years and not spread by seed or root. Self-fertile. Native to Siberia and Manchuria. Z3. **ME Grown**. (1-3')

291A Siberian Peashrub, $11.00



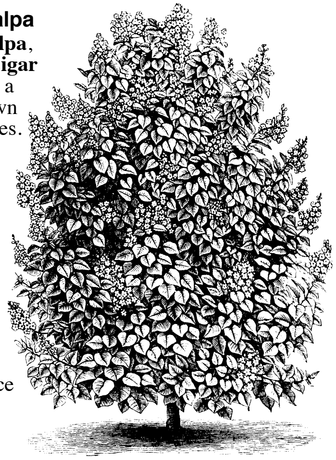
***Carya ovata* Shagbark Hickory** 60-80' or taller. One of our most beautiful native nut trees. Straight trunked and draped with branches that curve skyward at the tips. An understated tree but one with great presence. Not only does the bark shag, it looks as though huge long strips are about to fall off. After the tree reaches bearing age, about 40 years, it will shower the yard with its sweet edible nuts. Those left unharvested germinate in the gardens, planted by local creatures, some four legged, some two. Rich yellow or golden fall foliage. Slow-growing but very long-lived. Tough wood used for making tool handles. Prefers rich well-drained loam, but adaptable. Self-pollinating. Native to eastern U.S. Z4. (1-3')

292A Shagbark Hickory, $12.00



***Castanea dentata* American Chestnut** Up to 100' Once again we’re offering seedlings of pure American chestnuts from seed collected in Maine by our state chapter of the American Chestnut Foundation. Before 1900 American chestnut was one of the most important deciduous trees in the eastern U.S. The arrow-straight rot-resistant wood was used for everything from mine timbers to musical instruments. Heavy annual crops of delicious sweet nuts were an important food for wildlife and humans. When cut down, the trees quickly grew back from the stump. The Asian fungus *Endothia parasitica* (chestnut blight) was discovered in Brooklyn in 1904; within 50 years it killed virtually every chestnut tree in the eastern U.S. The blight does not kill the roots however, and rare isolated stands of mature trees can still be found. The trees we’re offering are not immune to blight but were harvested from healthy trees and will likely thrive if there is no active blight infection within a mile. John has two that are more than 30 years old. Fast-growing and straight-trunked with a wide-branching magnificent rounded crown. Fragrant white blooms in July. Ribbed sharp-toothed lustrous dark green foliage. Yellow fall color. Prefers well-drained acid soil. Two or more needed for pollination but will cross-pollinate with Asian and European chestnuts. Precocious, bearing heavy crops of nuts in 10 years. From each American chestnut purchase, Fedco will donate $3 to support the work of the American Chestnut Foundation. Z4. **ME Grown.** (2-4')

293A American Chestnut, $18.00

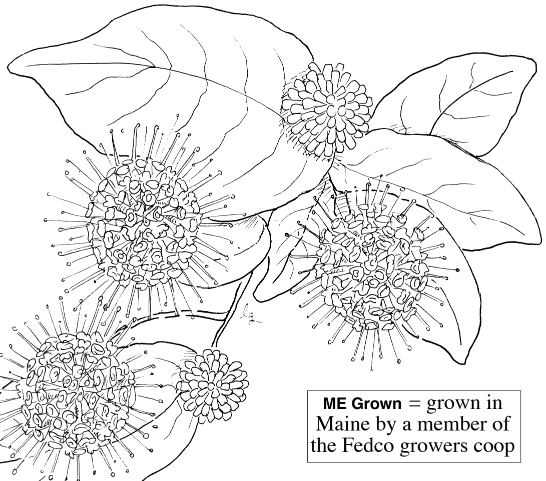


***Catalpa speciosa* Northern Catalpa** 40-60' Also known as **Western Catalpa**, **Elephant Ear Tree**, **Catawba** and **Cigar Tree**. Fast-growing coarse habit with a somewhat narrow open irregular crown and thick interesting undulant branches. Dense foliage of huge “elephant ear” heart-shaped leaves provides excellent shade. Covered in early summer with clusters of ruffled incredibly fragrant jasmine-scented white blossoms each dotted with purple and spotted with rich buttery-yellow radiating from the throat. Flowers attract bees by day and moths by night. Fruits are long bean-like “cigar” pods. The wood is extremely resistant to rot and was once used to make railroad ties in the Midwest. Prefers deep moist fertile soil, but thrives in almost any conditions and soils, sun or partial shade. Grows rapidly. Remains dormant late into spring. Self-fertile. Native to central U.S. Z4. (2-4')

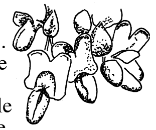
294A Northern Catalpa, $12.00

***Cephalanthus occidentalis* Buttonbush** 6-10' x 8' Loose rounded branchy shrub with masses of unusual spherical fragrant white flowers that appear for 4–6 weeks in summer—a magnet for every honeybee around. These highly ornamental blooms the size of Ping-Pong balls also do well in dried flower arrangements. The seeds (nutlets) make good duck fodder in the fall. Bright green foliage. Often found in masses along the shores of New England’s rivers and ponds but also suitable for the garden. We’ve seen single specimens thriving and looking great. Prefers moist soils. Recommended in hedges for naturalizing. Native to eastern U.S, west to New Mexico. Z4. **ME Grown**. (2-4')

295A Buttonbush, $11.00



ME Grown = grown in Maine by a member of the Fedco growers coop



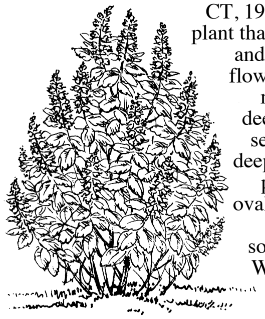
Cercis canadensis **Redbud** 25-30' x same. Small vase-shaped tree is highly ornamental with edible flowers and seeds. In early spring, clusters of small brilliant purplish-pink pea-like flowers are so abundant they fill the entire tree, dotting the branches and even coming right out of the trunk. Flowers edible raw or cooked. 2–3" flat leguminous pods with roastable edible seeds high in antioxidants. Nitrogen-fixing tree is also valuable as an early-season nectar plant for bees. Large heart-shaped leaves emerge opaque pink, mature to deep green and turn yellow in fall. Customers report that it is reliably blooming in Zone 4. If you have experience with redbuds in northern areas, please let us know. We are looking for trees with ironclad bloom. We'd like to propagate using the hardiest seed. Sun or partial shade, soil adaptable. Fine as a specimen tree or in groups. May need sweating before planting to break dormancy, instructions on page 4. Native to central and eastern U.S. Z4. **ME Grown.** (1-3')

296A Redbud, $16.50

Chaenomeles japonica **Japanese Flowering Quince** 2-3' x same. A smaller and earlier-blooming species of flowering quince than the standard shrub seen in full flower throughout New England in early spring. Flowers, 1–2" across, vary from orange-red to scarlet on year-old spiny wood when everything else in the garden still looks dead. In late September golf ball-sized aromatic greenish-yellow fruits will emerge with strong scents reminiscent of a mix between apple and pineapple. While this is not *Cydonia*, the "edible quince," its hard acidic fruits can be cooked and prepared in jams, syrups, juice, wine, liquor and candies. Rich in vitamin C and antioxidants. Low-maintenance overall but if pruning is desired, best done right after flowering. Most will flower year after year with virtually no care at all. Adaptable to almost any soil type from sand to heavy clay. Full sun to partial shade. Native to Japan. Z2. **ME Grown.** (1-3')

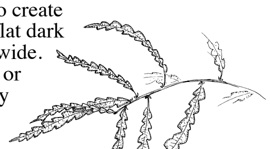
297A Japanese Flowering Quince, $12.50

Clethra alnifolia **'Ruby Spice' Summersweet** or **Sweet Pepperbush** 4-5' x same. Sport of 'Pink Spires', Broken Arrow Nursery, Hamden, CT, 1992. A *New York Times* article called Clethra "a plant that sounds almost too good to be true." Red buds and beautiful spires of heavenly scented deep pink flowers appear on racemes for 6 weeks in midsummer. Bees and butterflies love it but rabbits and deer do not. Whorls of extremely attractive finely serrated distinctly veined dark green foliage turn deep gold in fall. Dangling racemes of "black pepper" persist into the next growing season. Erect oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist well-drained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions. Full sun to shade. Pest-free and easy to grow. Species native Maine to Florida. Z3. **ME Grown.** (1-3')



298A Ruby Spice Summersweet, $15.25

Comptonia peregrina **Sweetfern** 2-4' Fragrant suckering woody shrub has a fern-like appearance. Spreads by rhizome to create colonies. Woody upright stems are canopied by flat dark green toothed alternate leaves 3–5" long and $^{1}/_{4}$"wide. Leaf infusions are used topically for easing itchy or irritated skin associated with bug bites, poison ivy and other inflammations. Associated with woodlands but also found in disturbed sandy infertile soil, often on roadsides. Prefers acidic soil, add peat to the hole when transplanting. Amend soils as you would for growing blueberries. Can be slow to establish at first but once it gets going it is a very tough plant. Nitrogen-fixing. Native to eastern U.S. Z2. **ME Grown.** (1-3')



299A Sweetfern, $12.00

A traditional Micmac use of sweetfern (*Comptonia peregrina*):
"The leaves of sweet fern make a pleasant tea. Gently steep a few leaves to a cup of water. The Mi'kmaq used the leaves to treat poison ivy rash. The leaves were steeped or boiled in water, and the liquid used to bathe the poison ivy rash. The treatment should be repeated on a regular basis."
–from *Micmac Medicines* by Laurie Lacey

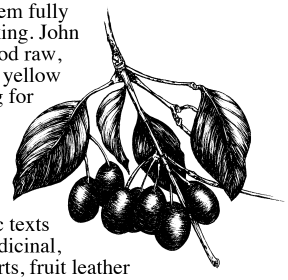
Cornus alternifolia **Pagoda Dogwood** 20' x 30-35' Also known as **Alternate-Leaved Dogwood**. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and extremely fragrant white 2–3" flower clusters. These appear in mid-late spring, followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots, bark and inner bark all medicinal. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups and often found growing with sugar maple, beech and basswood. Reddish-purple fall color. Native to eastern U.S. Z3. (1-3')

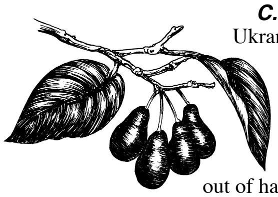
300A Pagoda Dogwood, $14.00

C. kousa **var.** ***chinensis*** **Kousa Dogwood** 20-30' x same. Also referred to as **Chinese Dogwood**. Introduced by EH Wilson, Hupeh, China, 1907. Small horizontally spreading specimen shrub or tree covered with layers of milky-white blossoms for up to six weeks in early summer. Michael Dirr calls it one of the most beautiful of all flowering trees. The pointed bracts give blossoms a starlike appearance followed by deep pink edible Ping-Pong ball-sized fruit. Fedco friend and consultant Tom Vigue has some beautiful specimens; while we were tasting his fruit he suggested peeling off the rough-textured skin before eating. The flesh is sweet and mild, and reminds us of pawpaw. Though really fun to eat, it would be time consuming to peel a large quantity by hand. Tan, grey and orange exfoliating bark. Scarlet-orange-yellow fall foliage. Used up north as a counterpart to the iconic southern dogwood tree, *C. florida*. Resistant to dogwood anthracnose and borer. Prefers light well-drained soils with an abundance of air and sun, but it'll tolerate shade and damper areas. Very adaptable. Native to China and Japan. Z4. (1-3')

301A Kousa Dogwood, $16.00

C. mas **Cornelian Cherry** 20-25' x 15-20' Bright red pear-shaped edible "cherries" set heavily in late summer. Let them fully ripen to their full sweet potential before picking. John exclaims, "The fruit actually tastes really good raw, right off the tree!" Clusters of small delicate yellow flowers cover the leafless tree in early spring for a striking show before the forsythias even think of waking up. Long-lived large shrub with upright rounded habit makes a great edible hedge or can be pruned to a small tree. Humans have harvested the fruits for thousands of years, lending it press in classic texts by Ovid, Plutarch and Virgil. Nutritious, medicinal, high in vitamin C and good in jam, syrup, tarts, fruit leather and wine. The wood is hard and strong, once used to fashion spears and wheel spokes. This plant has it all. Prefers well-drained soil and full sun but otherwise adaptable. Likely to bear fruit in 2–3 years. Of the two cultivars listed, Tom Vigue says, "Pioneer may sound like the more worthwhile of the two, but I wouldn't be without Elegant. It is truly delicious. Plus, even though they are wind pollinated, I believe having two cultivars improves pollination success." Grafted and grown by Seth Yentes of North Branch Farm in Monroe, ME. Native to Europe and Asia. Z4/5. **ME Grown.** (2-4')





C. m. **'Elegant'** Bred by Svetlana Klimenko, a Ukranian botanist at the Central Botanic Garden in Kiev. Selected for excellent fresh-eating flavor. Ripens around the third week of August in Maine. Picking window lasts between two and three weeks. Fruits are about $1^{1}/_{4}$" long with a very slender elongate shape. Soft flesh is tricky to pit so best eaten out of hand.

302A Elegant Cornelian Cherry, $25.00

C. m. **'Pioneer'** Another Klimenko intro with great flavor. More tart than Elegant but better for processing. Ripens around the first week of September in Maine, about one week after Elegant. Picking window lasts for three or four weeks. Fruits mature to about $1^{1}/_{2}$" long and have a pronounced fat pear shape. Firm flesh is easy to pit.

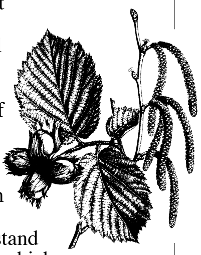
303A Pioneer Cornelian Cherry, $25.00

C. m. **Cornelian Cherry Seedlings** Each one will be unique and fruit-bearing. Plant several for genetic diversity. They will pollinate each other and any named cornelian cherry cultivar. We planted ours in a hedge and even though they haven't come to bearing age, we admire their lovely form each time we pass by them.

304A Cornelian Cherry Seedlings, $16.00
304B Cornelian Cherry Seedlings, bundle of 5 for $60.00

C. sericea **Redosier Dogwood** 8-10' Formerly called ***C. stolonifera***. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges and borders. Most admirable in the winter when the masses of brilliant red stems are especially beautiful against a backdrop of freshly fallen snow. Bring them inside and enjoy them in wreaths and arrangements. By June, the stems are hidden by dark green foliage and sprinkled with tiny four-petaled star-shaped flowers. 2–3" clusters of whitish berries are popular with nearly 50 bird species. One of the most valuable of our native wildlife plants. Perfect for swamps, streams and wetlands. Very adaptable to a range of soils and climates, but generally likes wet conditions. Sun or partial shade. Fast-growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. **ME Grown.** (1-3')

305A Redosier Dogwood, $14.00
305B Redosier Dogwood, bundle of 5 for $50.00

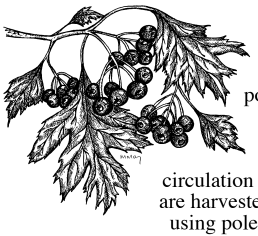


Corylus americana **American Hazelnut** or **American Filbert** 12-18' x 10-15' Squirrels, bluejays and humans alike relish the sweet excellent nuts of this multi-stemmed rounded native shrub. Collect the crop as soon as the husks begin to turn brown and lose their sticky yellowness. In central Maine that's around the third week of September. Cure nuts in their husks for a couple of weeks and then shell them. You can even stomp off the dry shells in a big tub as if you were juicing grapes, then winnow away the trash on a breezy day. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots. Excellent for naturalizing in thickets. Annually cutting out some suckers and/or oldest stems will keep your stand from becoming too shrubby. The main pest is plum curculio, which leaves a "hit" mark on the nut shell. (Spraying Surround may help with controlling PC.) One easy way to separate defective nuts is by floating them off. Prefers well-drained soils and is pH adaptable. Full sun or light shade. May be self-fruitful but some of the best nut sets we've seen were on sites with more than one shrub planted 4–6' apart. Usually bears tasty 1/2" nuts 3–5 years after planting. Not to be confused with our local wild Beaked Filbert, which is smaller and prickly to handle. Native to the U.S. Z4. (1-3')

306A American Hazelnut, $15.50

Cotinus obovatus **American Smoketree** 20-30' x same. Also called **Smoke Tree** and **Chittamwood**. According to Michael Dirr, this small ornamental tree "may be the best of all American shrub/trees for the intensity of color." Bears 6–10" panicles of tiny yellow-green flowers in early June. As they fade, fuzzy light pink "hairs" emerge and persist all summer, giving the tree its hazy smoky misty ethereal quality. Bluish-green oval leaves turn yellow, orange, amber, red and purple in the fall. Scaly, interesting bark. Might produce berries if more than one is planted. Finches love the seeds. Thought to be a relic tree from 25 million years ago, it almost went extinct during the mid-19th century when the wood was over-harvested for fence posts, tool handles and orange fabric dye. Allow to grow several trunks or prune to a single specimen. Tolerates most soils but prefers well-drained infertile ground. Full sun to partial shade. Native to North America. Not to be confused with *C. coggygria*, Smokebush. Z4. **ME Grown**. (1-3')

307A American Smoketree, $13.00



Crataegus monogyna **Singleseed Hawthorn** 20-30' x 10-15' Also called **Wild Form Hawthorn**. Multi-stemmed shrub or small tree with medicinal berries, flowers and leaves. Profuse white flowers in spring cover the sun-facing branches of the tree and look stunning against the dark green deeply lobed polished foliage. Large thorns are scattered along the branches and trunks. One of several official medicinal species that doctors and herbalists use for the cardiovascular system, to improve circulation and regulate blood pressure. Dark red 3/8" fruits are harvested in October, or when they turn entirely red, by using pole loppers to cut off branches loaded with berries. Don't let them fall on your head! Berries can be dried for teas or tinctures or processed fresh into syrups and preserves. We enjoy the berries infused in our wintertime teas to help keep fingers and feet warm on those cold dark days. Interestingly, the fruit has very little taste, just a subtle sweetness with a pasty, almost mealy, texture making it relatively unappealing for fresh eating. Hangs from branches throughout winter providing substantial winter food for birds. In the wild it has crossed with countless other species of hawthorn making identification challenging. The most common species of hawthorn worldwide and seen throughout Europe in hedges that go on for miles. Native to Europe, North Africa, western Asia, and naturalized in U.S. Z3. **ME Grown.** (1-3')

308A Singleseed Hawthorn, $14.00
308B Singleseed Hawthorn, bundle of 5 for $50.00

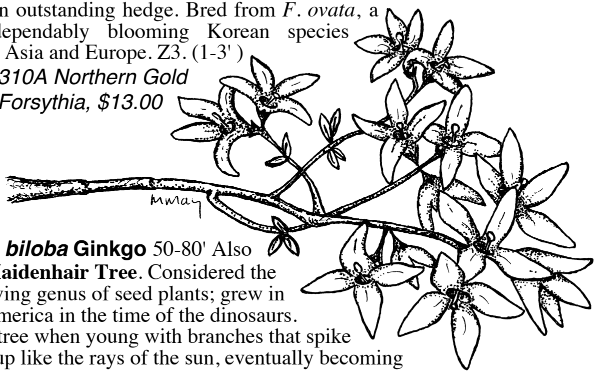
Cydonia oblonga **Quince** 10-25' A small tree with large aromatic tan or yellowish fruit, up to a pound and a half, shaped like a cross between a pear and an apple. Usually eaten in stews, marmalades and jellies. Sometimes added to hard cider. At one time, every Maine dooryard had a quince. Cultivated for millenia but lost favor in more recent times, the "golden apple" has quite the history: in ancient times, a gift to Greek brides on their wedding day; in colonial American homesteads, a staple pectin fruit; in Mother Goose, the Owl and the Pussycat's picnic treat; in the Bible, maybe even the *real* forbidden fruit. Large white to pink flowers. Wood of mature trees becomes impressively gnarled and twisted. Similar soil requirements to other fruit trees. Plant in full sun and space 16' apart. Prune like an apple tree. Needs protection from apple borers. Susceptible to fireblight. Fruit may not ripen in coldest areas. We're currently looking for local specimens that might be brought back into cultivation. If you know of any, please let us know! Self-fruitful but planting more than one will give better yields. Native to Western Asia. Not be be confused with Flowering Quince, the ornamental shrub *Chaenomeles*, which has smaller fruit. Z4/5. (3-6')

C. o. **'Pineapple'** Named by Luther Burbank for pineapple-like flavor when made into jelly. Large smooth light golden-yellow fruit with tart white flesh. Good for fresh eating, jelly or winemaking. Late bloomer ripens in late summer. (3-6')

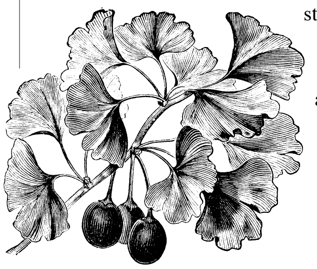
309A Pineapple Quince, $22.00

Forsythia* x *ovata **'Northern Gold' Forsythia** 6-8' x 5-7' Ottawa, Canada, 1979. One of the earliest forsythia cultivars to flower in spring. Upright form with yellow-grey branches clad in healthy rich green foliage. If your forsythia blooms only from the snow line down, you've been duped: don't buy cheap big-box forsythia. Northern Gold has not only the bud hardiness necessary for flower production above the snow line, but also outstanding golden-yellow flowers. You can have a full bloom every year! Prefers moderately fertile, slightly acid to neutral soils with good drainage. Makes an outstanding hedge. Bred from *F. ovata*, a hardy dependably blooming Korean species native to Asia and Europe. Z3. (1-3')

310A Northern Gold Forsythia, $13.00



Ginkgo biloba **Ginkgo** 50-80' Also called **Maidenhair Tree**. Considered the oldest living genus of seed plants; grew in North America in the time of the dinosaurs. Upright tree when young with branches that spike out and up like the rays of the sun, eventually becoming wide-spreading and graceful. Slow-growing, can be extremely long-lived. Unique fan-shaped foliage turns sparkling golden-yellow in fall, then all at once the leaves drop and within hours the tree is bare. Famous for their edible seeds and the infamous stinky fruit that encloses them. The flesh will actually rot off all on its own, leaving clean edible nuts with no bad smell. The softish nuts can be used in stir-fries. Leaf tea used to enhance circulation to the brain and extremities. Tolerates smoke, dust, wind, ice, insects, disease, salt. Prefers slightly acid well-drained soil but is very adaptable. Minimal maintenance requirements, nearly indestructible, an excellent city tree. There are 3000-year-old specimens in China. Male and female tree required for fruit. These are unsexed seedlings. Plant two or more for fruit. Native to southeastern China. Z3. (1-3')



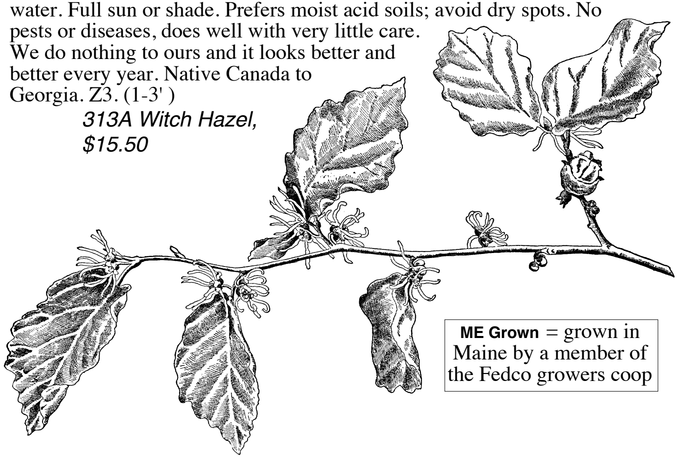
311A Ginkgo, $15.00
311B Ginkgo, bundle of 5 for $67.00

Gleditsia triacanthos* var. *inermis **Thornless Honeylocust** 50' x 30-35' *Inermis* means 'unarmed.' Beautiful fast-growing pyramidal leguminous nitrogen-fixing tree. Fabulously fragrant honey-scented spring flowers are extremely popular with bees—the entire tree will hum with activity during peak blossom time. Bright green lacy leaves provide filtered light, making it good for "two-story" agriculture or great shade for the lawn. Sugary pods suitable for cattle or pig forage or even ethanol. Traditionally pods were dried, ground and used in flour. Good for erosion control and often used as a street tree. Plant in full sun, well-drained soil. Loves the sandy hills of Cape Cod. Tolerates drought, pollution, salt, disease and insects. Native to eastern U.S. Z4. **ME Grown** (2-4')

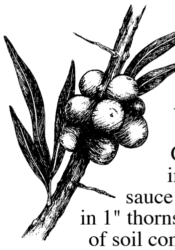
312A Thornless Honeylocust, $14.00

Hamamelis virginiana **Witch Hazel** 8-20' x same. A small irregular rounded fall-flowering medicinal tree or large shrub. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, baggy eyes (yes!), poison ivy, chicken pox, even an unhappy lovelife. T.N. Dickinson's Witch Hazel Astringent is still available in your local drug store. Most preparations involve simply brewing tea from the leaves and/or twigs. Oval hazel-like textured foliage. Brilliant golden-yellow fall color. Quirky yellow flowers appear in early to mid November. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing to ours and it looks better and better every year. Native Canada to Georgia. Z3. (1-3')

313A Witch Hazel, $15.50



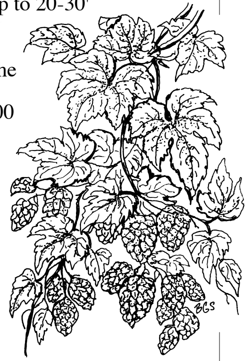
ME Grown = grown in Maine by a member of the Fedco growers coop



***Hippophae rhamnoides* Sea Buckthorn Seedlings** 15' Bright orange 1/2" berries of this nitrogen-fixing shrub are very high in vitamins A, C and E as well as loaded with antioxidants. Recently there has been a lot of talk about these berries in the U.S. though they have been in use for some time in Europe. Oil made from the fruit pulp is very high in essential fatty acids and beta carotene, which help the skin ward off free radicals and UV radiation. Clusters of tart and tangy berries cling tightly to the stems in late summer and are quite pleasant when added to apple sauce or made into jams, syrups and liquors. Stems are covered in 1" thorns and silvery-grey foliage. Very adaptable to a wide range of soil conditions but prefers sandy infertile soil with full sun. Does well in masses, hedges, along roadsides or seashores. Dioecious, necessary to have a male to pollinate berry-producing females so best to plant multiples. Native to Asia and Europe. Z3. **ME Grown.** (1-3')

314A Sea Buckthorn Seedlings, $14.00

314B Sea Buckthorn Seedlings, bundle of 5 for $50.00



***Humulus lupulus* Common Hops** Late summer. Up to 20-30' Beautiful twining vine covers a trellis, archway or the entire side of a barn with green lobed leaves, bristly stems, and insignificant greenish flowers, followed by the hops: papery aromatic cone-like strobiles that are used medicinally and have been used in brewing for over 1000 years. John Christopher recommends the strobile tea as “a powerful, stimulating and relaxing nerve tonic.” For brewing, there are basically two types of hops. Aroma hops have a lower percentage of alpha acids and are used for flavoring, finishing or conditioning brews. Bitter hops have more alpha acids and are used to impart bitterness. Tolerates shade, adapted to most well-drained soils. Dies back to the ground in fall and rebounds more vigorously each year. Plant it where you want it because it really takes over. No serious pests or diseases. Native to Eurasia. Z3. (4-6" female rhizomes)

***H. l.* ‘Cascade’** USDA 19124 [(Fuggle x Serebrianka-Fuggle S) x open-pollinated] Oregon St U, 1972. Contains 4-7% alpha acids. Fragrantly aromatic hop, low bittering value. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, “Cascade has gained impeccable renown as *the* charismatic hop in such unsurpassable ales as Anchor’s Liberty Ale, Sierra Nevada’s Pale Ale and McNeill’s Firehouse Amber Ale. Nothing ‘light’ about these.” Resistant to downy mildew. (5-6" female rhizomes)

L315A Cascade Hops, bundle of 3 for $17.50

***H. l.* ‘Magnum’** (Galena x select German male) German Hallertauer hybrid, 1980. Alpha content 12-17%. Very high bittering with good storability. Strong bitter flavor with subtle hints of spice and citrus. Known for giving a clear and distinct bitterness that is not overpowering. Used in IPA’s, pale ales and German lagers.

L316A Magnum Hops, bundle of 3 for $17.50

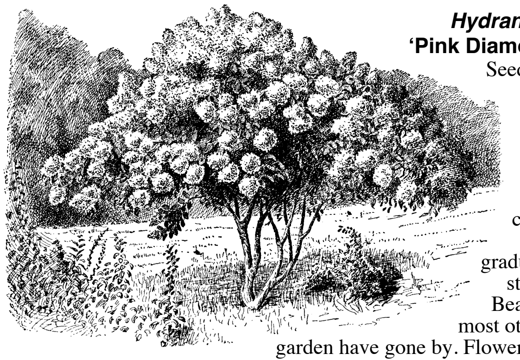
***H. l.* ‘Northern Brewer’** (Canterbury Golding x select English male OB21) England, 1934. Alpha content 7-11%. Distinctive mint-like flavor with smooth bittering qualities despite the higher-than-average acid content. All-purpose but most often used in English-style ales, ESB’s and porters.

L317A Northern Brewer Hops, bundle of 3 for $17.50

***H. l.* ‘Willamette’** (USDA 21003 x Fuggle Seedling 2-4) USDA, 1976. Alpha content 4-6%. Excellent all-purpose hop. Old English-style aroma with brewing characteristics similar to Fuggle. Low bittering. Spicy aroma. Good finishing hop for brewing English ales and stouts. Vigorous. Good disease resistance.

L318A Willamette Hops, bundle of 3 for $17.50

FUNKY BOW
BREWERY & BEER COMPANY
LYMAN, ME



***Hydrangea paniculata* ‘Pink Diamond’** 6-8' x same. Seedling of ‘Unique’. DeBelders intro, Belgium, 2006. Very large 8–12" long upright conical panicles first display a cream color in late summer but gradually turn to pink, starting at the base. Beautiful color when most other flowers in the garden have gone by. Flowers form on current year’s growth, so best to prune stems back each spring to ground level or to an older framework of permanent limbs. Hardiest species of hydrangea, no need to worry about losing precious flower buds to cold temps. Fast-growing and low-maintenance. Adaptable to many soil types but prefers a rich sandy loam, full sun to partial shade. Rarely bothered by Japanese beetles. Species native to Asia. Z3. (1-3')

319A Pink Diamond, $14.00

***Ilex verticillata* Winterberry** Also called **Black Alder**, **Fever Bush**, **Possumhaw**, **Swamp Holly** and more. Deciduous suckering medicinal holly with clusters of upright stems. Best known for profusions of bright red 3/8" berries which stand out after the leaves fall—they keep their color all winter, spectacular against the snow. A staple of the Maine landscape. Lustrous deep green leaves retain their color long after they’re cut for decoration. Richly foliated, but open enough to display interesting branching structure. Excellent fall wildlife forage plant. Leaves used for tea and tonic, astringent bark used in herbal medicine. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests or diseases. Male and female plants required for fruit, which is produced on female plants. Plant males within 30' of females. Native from midwestern to eastern U.S. Z4. (1-3')

***I. v.* ‘Afterglow’** 3-6' x 3-5' **Female**. Early bloomer with large orange-red fruit. Compact form with small glossy green leaves. Jim Dandy male required for pollination.

320A Afterglow Winterberry, $14.50

***I. v.* ‘Jim Dandy’** 3-6' x 4-5' **Male** selection to pollinate Afterglow winterberry. One will pollinate several females. **ME Grown.**

321A Jim Dandy Male Winterberry, $14.50

***I. v.* ‘Sparkleberry’** 12' x 8-12' **Female**. Introduced by the National Arboretum. Abundant bright red berries persist late into winter. Large upright form with spreading habit. Southern Gentleman required for pollination. **ME Grown.**

322A Sparkleberry Winterberry, $14.50

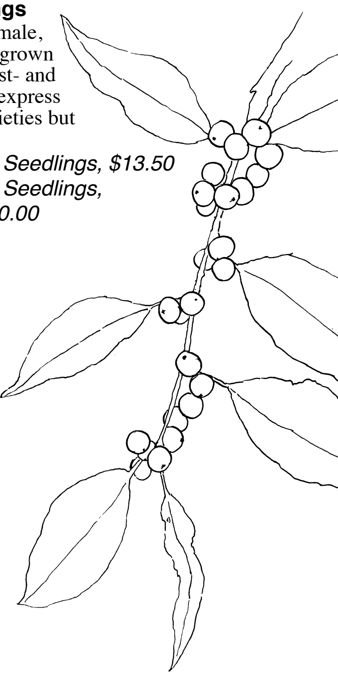
***I. v.* ‘Southern Gentleman’** 6x6' **Male** selection to pollinate Sparkleberry winterberry. Don’t be deceived by the name—it’s hardy. One will pollinate several females. **ME Grown.**

323A Southern Gentleman Male Winterberry, $14.50

***I. v.* Winterberry Seedlings** 6-10' x same. Some will be male, some will be female. Plants grown from seed are often more pest- and disease-resistant. They will express similarities to cultivated varieties but each one will be unique.

324A Winterberry Seedlings, $13.50

324B Winterberry Seedlings, bundle of 5 for $60.00



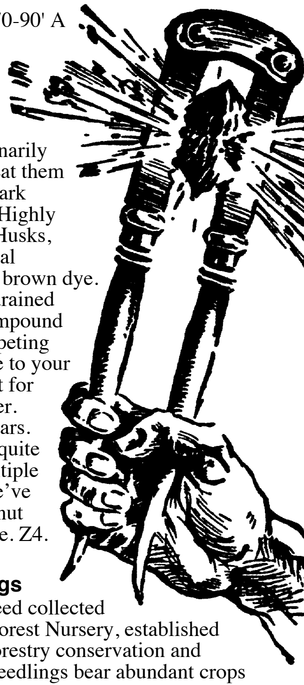
Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting. Hops prefer full sun and rich light well-drained soil with a pH of 6.5–8.0. As soon as soil can be worked in spring, till to create a weed-free area. Dig holes about 1' deep and at least 3' apart in rows. Add manure, compost and other slow-release organic fertilizers. Plant 2 rhizomes per hole, horizontally with the buds pointed up and cover with 1–2" of loose soil. The first year the hop plant requires frequent light watering and mulching.

Hops grow vertically, with lateral sidearms extending from the main vine and producing cones. Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12–30' high, supported by a trellis, wire, pole, tree branch or south-facing building. When the young vines are about 1' long, select the 2 or 3 most vigorous vines per hill and remove the rest. Gently wrap the vines clockwise onto a string. Once trained, the vine will guide itself.

Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Harvest dates will vary with the variety and climate. Because most hops are produced out of reach from the ground, it is safest to lower the vines in order to pick the hops. Dry hops thoroughly before use. Placed on a window screen in a dry attic, they will dry in a few weeks. Dried hops freeze well.

Cut the vines back to the ground after they have been killed by frost. Each spring apply a hearty topdressing of manure and compost. To help control vigor, prune roots by cutting a 2–3' circle with a shovel around the base of the plant in spring.



Juglans nigra **Black Walnut** 70-90' A spectacular shade tree with a magnificent open rounded crown of massive limbs with dark green leaves. Harder to crack than commercial English walnuts but worth the effort for their extraordinarily distinct sweet earthy rich flavor. Eat them chopped on fresh salads, or with dark chocolate while sipping bourbon. Highly valued cabinet and veneer wood. Husks, leaves and roots all have anti-fungal properties. Husks also yield a rich brown dye. Deep taproot. Prefers moist well-drained soils, pH 6–7. Roots give off a compound called juglone which inhibits competing plants, so don't plant one too close to your garden. Space trees about 50' apart for nut production, 20' apart for lumber. May begin to bear fruit in 5–10 years. Native to eastern U.S. though not quite into Maine. Some sources say multiple trees needed for pollination but we've seen enough solo trees with large nut crops to say that you only need one. Z4. (3-6')

J. n. **New Hampshire Seedlings** Grown in New Hampshire from seed collected and germinated by the NH State Forest Nursery, established in 1910 to provide seedlings for forestry conservation and education. Parent plants of these seedlings bear abundant crops annually. Each tree is unique and will add diversity to the landscape. You can't have enough walnuts and we encourage you to plant many different types!

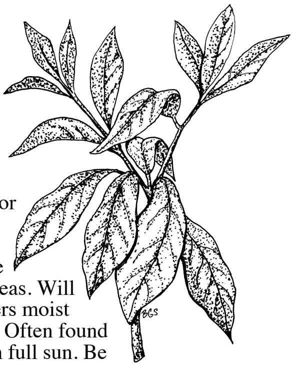
325A New Hampshire Black Walnut Seedling, $13.00

J. n. **Thor-Nox Seedlings** Grown from seed harvested in Waldo County, ME. The parent tree is an old walnut whose seed (also harvested in Maine) was planted by Shirley Bessey more than 30 years ago next to her farmhouse at Thor-Nox Farm. The large productive tree yields an abundance of flavorful nuts every year and has self-sown a number of nut-bearing offspring on the farm. These seedlings possess qualities very similar to the parent tree. **ME Grown.**

326A Thor-Nox Black Walnut Seedling, $13.00

Larix laricina **American Larch** 40-80' x 15-30' Usually called **Tamarack**, **Hackmatack** or just **Hack** in Maine. Pyramidal deciduous conifer with grey-green foliage that turns soft golden-orange before dropping in the fall—our only conifer that loses its needles in winter. Beautiful as a specimen or in a stand. Strongly horizontal branching habit. Incredibly tough wood used for barn floors. Curved "knees," where roots meet the trunk at 90 degrees, traditionally were sought by wooden-boat builders. Commonly grows in bogs and prefers moist acidic soils. Extremely hardy and fast growing. Native from the Arctic Circle south to northern Pennsylvania. Not recommended in warmer areas. Z1. (1-3')

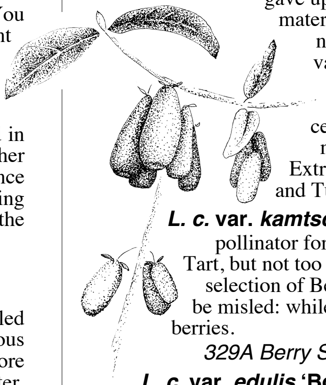
327A American Larch, bundle of 5 for $16.50



Lindera benzoin **Spicebush** 6-12' x 8-12' Large rounded multi-stemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Soft-yellow flowers early in spring followed by small clusters of glossy red berries by mid to late summer. Blue-green foliage turns golden yellow in fall. Edible berries and medicinal twigs and bark. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony-spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Will also attract bees, birds and butterflies. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. Be patient with the plants. We thought one had died a few years ago and dug it up, only to find that the roots were alive and well, ready to go. These are unsexed seedlings: male and female plants required for fruit so plant several for best results. Native to eastern U.S. Z4. (1-3')

328A Spicebush, $14.00

328B Spicebush, bundle of 5 for $63.00



Lonicera caerulea **Honeyberry** Also called **Haskap** or **Edible Honeysuckle**. Extremely hardy, medium-sized fruiting shrub is somewhat similar in bush and berry to our native highbush blueberry. Small oval fruit is dark blue, tart, very high in antioxidants, and ripens in June before the strawberries. In the Japanese Ainu language, *haskap* means 'lots of little things on top of the branches.' Productive plants bear at a young age with proper pollination. Ten pounds of fruit per plant is possible after a few years. Years ago we tried honeyberries on our farm. We never got much fruit and gave up on them. That may have been because early plant material was from Russia and flowered too early for our northern New England climate. Recently developed varieties use Japanese material which seems to have better success fruiting here in the States. We've got all three of these varieties in our trials now in central Maine and are pleased so far. Will do well in most soils and in a wide range of soil pH (5.0–8.5). Extremely hardy. Berry Smart Blue pollinates Borealis and Tundra. Z2. (1-3')

L. c. **var.** ***kamtschatica*** **'Berry Smart Blue'** 6-8' Recommended pollinator for Tundra and Borealis, will pollinate up to 8 plants. Tart, but not too tart, berries are good fresh or processed. Improved selection of Berry Blue which we've offered in years past. Don't be misled: while considered a pollinator, it still produces plenty of berries.

329A Berry Smart Blue Honeyberry, $18.00

L. c. **var.** ***edulis*** **'Borealis'** 4-6' x same. U of Saskatchewan, 2007 intro. The best-tasting and largest fruit in the Saskatchewan breeding program. Delicate fruit, not as firm as Tundra. Recommended for home gardeners. Needs Berry Smart Blue as a pollinator.

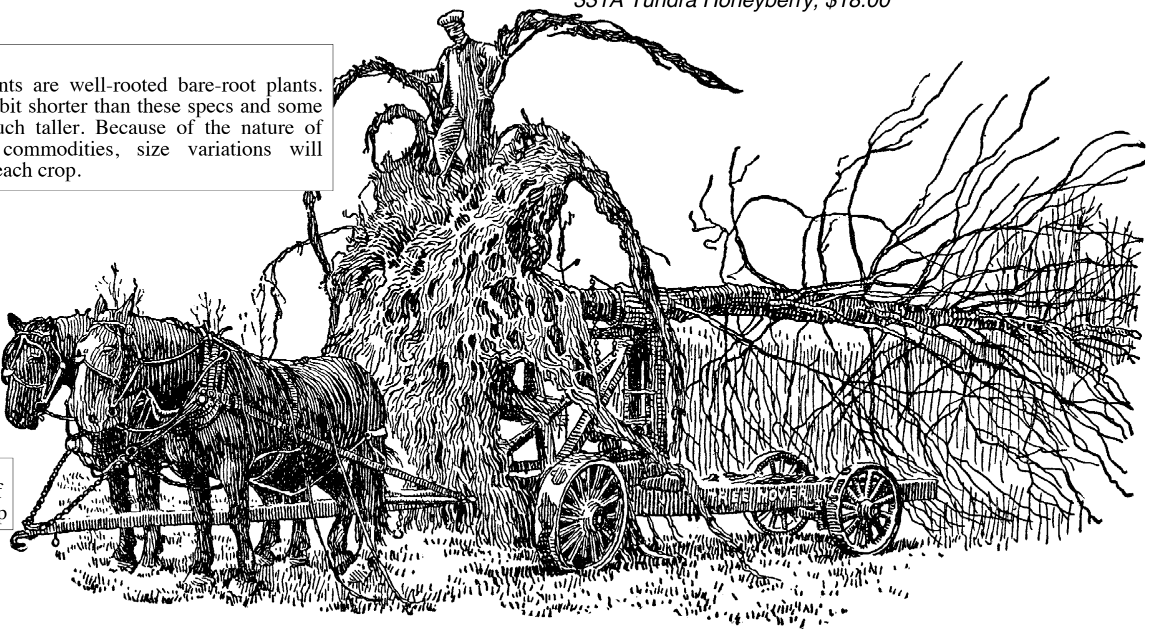
330A Borealis Honeyberry, $18.00

L. c. **var.** ***edulis*** **'Tundra'** 4-6' x same. U of Saskatchewan, 2007 intro. Large high-quality fruit is tangy and sweet, shaped in a long flat oval. Firmer and somewhat sweeter than Borealis. Needs Berry Smart Blue as a pollinator.

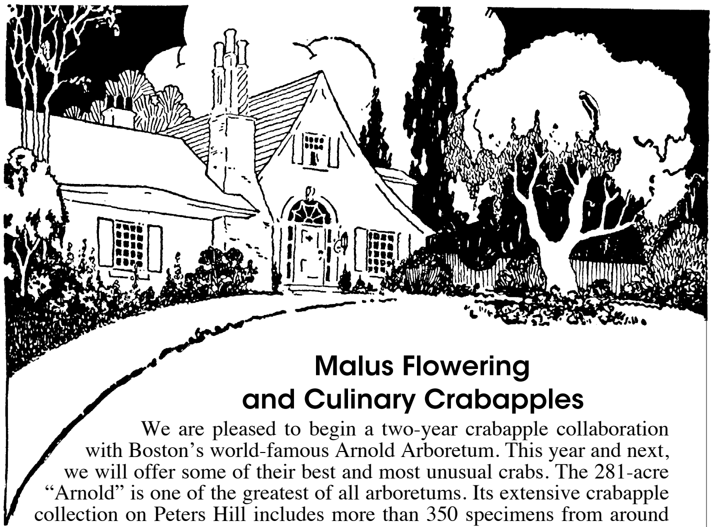
331A Tundra Honeyberry, $18.00

Plant Sizes

All of our woody plants are well-rooted bare-root plants. Some shrubs will be a bit shorter than these specs and some hardwoods will be much taller. Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.



ME Grown = grown in Maine by a member of the Fedco growers coop



Malus Flowering and Culinary Crabapples

We are pleased to begin a two-year crabapple collaboration with Boston’s world-famous Arnold Arboretum. This year and next, we will offer some of their best and most unusual crabs. The 281-acre “Arnold” is one of the greatest of all arboretums. Its extensive crabapple collection on Peters Hill includes more than 350 specimens from around the world. I’ve spent many days over the years exploring the crabs in all seasons. It’s always worth the trip.

The current project began a few years ago when I met Miles Schwartz Sax, then a horticultural apprentice at the arboretum, and we began to talk apples. Miles is the great grandson of Karl Sax, former Arnold Arboretum director and one of America’s greatest crabapple breeders. Miles put together the list—including a few of his great grandfather’s introductions—and supplied the scionwood for us to graft. The result is this diverse and delightful assortment. We are offering six varieties this year and will be offering five more in 2015. An excellent article about Miles’ work with the Arnold’s crabapples can be found in the November 2011 *Arnoldia*: *The Magazine of the Arnold Arboretum* (vol. 69 no. 2).

All crabapples require a second variety for pollination, but any apple or crabapple blooming at the same time, within a quarter mile, will probably do. (3-6')

Descriptions written by John Bunker and Miles Sax.

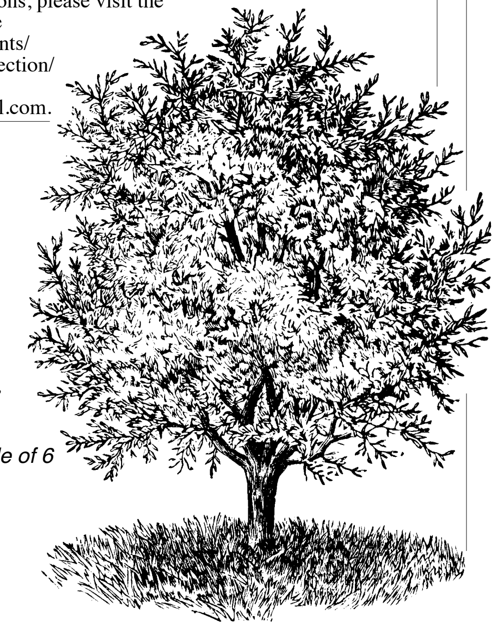
Notes from Miles Schwartz Sax:

The apple collection at the Arnold is considered to be one of the best in the world, representing a vast diversity of species (that is, apples collected directly from the wild representing native populations) as well as cultivated varieties (known as cultivars). Many of the Arnold’s apples have been important breeding parents to modern-day eating apples and ornamental crabapples.

The selections include unusual specimens that would be hard to find anywhere else. While some are tried-and-true hybrids, others are seldom grown. Whether you’re looking for interesting fruit and flower color, a pollinator, or a secret ingredient for your hard cider, your new crabapple will surely make you the talk of the town!

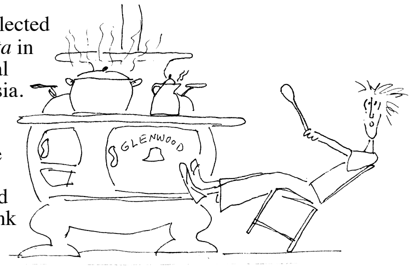
Each of the Arnold offerings has an **Accession Number** which is a unique identifier used by a botanical garden to keep track of plants in the living collection. Using the accession number you can find information about your plant on the Arnold’s website. You can also locate that exact plant when visiting the arboretum’s living collection.

If you have more questions, please visit the
Arnold Arboretum website
arboretum.harvard.edu/plants/
featured-plants/malus-collection/
or write to:
Miles.schwartz.sax@gmail.com.



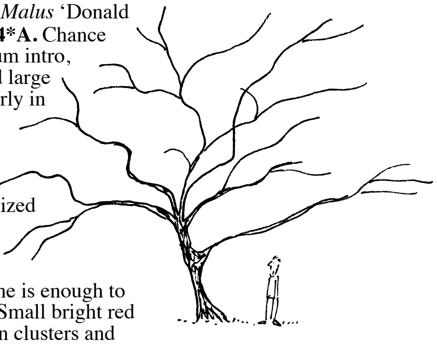
Arnold Arboretum Crabapple Collection
Six crabs from this year’s Arnold Arboretum crabapples: Dolgo, Donald Wyman, Fuji, Mary Potter, Sargent, Zumi Variant.

332A Crabapple Collection, bundle of 6 for $120.00



Dolgo 25x30' From seed collected by NE Hansen of *M.* x *robusta* in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. **Arnold Accession Number 160-52.** (*Dolgo* means ‘long’ in Russian.) Introduced in the U.S. in 1917. *The* classic culinary crab still found in old Maine backyards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple-red $1\frac{1}{2}$" teardrop-shaped fruit makes flavorful clear ruby-red jelly. In recent years the aromatic very sweet, very acidic fruit has found favor with hard cider makers. Also useful for canning, pickling and delicious sauce. Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Dependable pollinator for all apples. Very hardy. Z2. **ME Grown.**

333A Dolgo Crabapple, $25.00



Donald Wyman 20x30' *Malus* ‘Donald Wyman’ **Accession 23254*A.** Chance seedling. Arnold Arboretum intro, 1970. Light pink buds and large 2" single white flowers early in the season. The bloom is so intense the tree looks like one massive flower. Beautiful rounded wide-spreading medium-sized tree with attractive glossy green foliage. Looks great when it has room to spread out. The shape alone is enough to recommend this cultivar. Small bright red oval fruit covers the tree in clusters and persists until spring when the birds clean it off in time for the next bloom. Winner of the 2001 Carey Award for Distinctive Plants for New England. Named in honor of America’s great horticulturist. Disease free, although said to be slightly susceptible to powdery mildew. Z4.

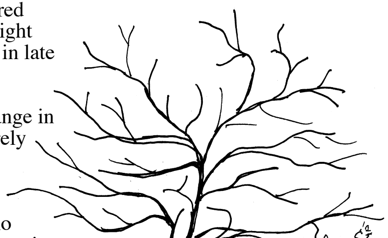
334A Donald Wyman Crabapple, $25.00

Fuji 15x15' *Malus sieboldii* ‘Fuji’ Alternately called *Malus toringo* ‘Fuji’. **Accession 418-68*C.** Unknown origin. U.S. National Arboretum intro (No. 325256), Washington DC, 1968. Small tree, perfect for the small yard. Purple-red buds and showy single white flowers. Flowers have 5 petals as well as 8–10 micro-petals coming off the stamens (technically known as petaloid stamens) giving the tree the appearance of a floriferous double bloom. Small bright golden-orange fruit. Highly praised by John Fiala in his book *Flowering Crabapples: The Genus Malus*. A favorite of Roger Luce, beloved Maine crabapple (and lilac and primrose) collector. Not the common eating apple of the same name. Z3/4. **ME Grown.**

335A Fuji Crabapple, $25.00

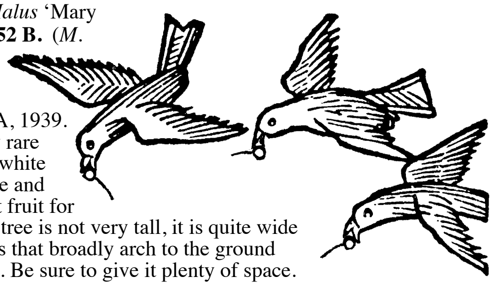
Halward 15x15' *Malus baccata* seedling ‘Halward’™. Ray Halward intro, Royal Botanic Gardens, Ontario, Canada, 1948. Naturally small tree suited to smaller yards. White buds and single pure white flowers followed by very showy small persistent red fruit. Blooms early and annually. Densely branched with glossy dark green foliage. Highly recommended though rarely planted. Introduced to us by Maine orchardist Howard Wulf who found what may be the last nursery trees left in the U.S. He obtained scionwood and passed some along to us. Disease resistant. Extremely hardy. (Not in the Arnold collection.) Z3 or maybe Z2. **ME Grown.**

336A Halward Crabapple, $25.00



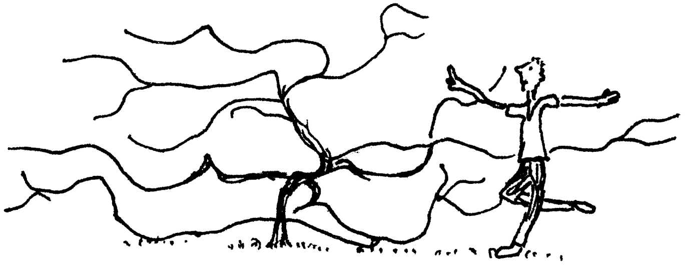
Indian Magic 15x15' *Malus* ‘Indian Magic’ Robert Simpson intro, Vincennes, IN. One of the best of all the pinks, an outstanding showy ornamental tree with a well-deserved great reputation. Beautiful in every season. Red buds open to single deep rose-pink flowers. Abundant attractive small elliptical bright glossy red long-stemmed fruits with a slight orange blush turn full orange in late fall and persist all winter, attracting birds. Dark green foliage also turns brilliant orange in fall. Rounded open form. Rarely affected by scab. Midseason bloom. Not part of the Arnold collection, but offered this year for those who really have to have a pink-flowering crab! Z4. **ME Grown.**

337A Indian Magic Crabapple, $25.00



Mary Potter 15x30' *Malus* 'Mary Potter' **Accession 181-52 B.** (*M. sargentii* 'Rosea' x (*M.* x *atrosanguinea*)) Karl Sax intro, Arnold Arboretum, Boston, MA, 1939. A magnificent and very rare variety with an apricot-white bloom, a beautiful shape and masses of red persistent fruit for the birds. Although the tree is not very tall, it is quite wide spreading with branches that broadly arch to the ground and then sweep upward. Be sure to give it plenty of space. The red buds retain their color while the strongly fragrant single white blossoms open. In full bloom the tree is a mass of flowers with no foliage visible at all. On top of that, the bright yellow stamens add an apricot hue to the entire tree in bloom. Named in honor of C.S. Sargent's daughter. (See next item!) Considered by many to be Sax's best introduction. High disease resistance. Z4. **ME Grown.**

338A Mary Potter Crabapple, $25.00



Sargent 8 x 15-30' *Malus sargentii* **Accession 20408*D.** Arnold Arboretum, 1892. Brought to the U.S. from Japan by one of America's most famous horticulturists, C.S. Sargent. The lowest-growing crab species, densely and horizontally branched from the base with no tendency to develop a central leader. The branches curve and twist and turn like a large pretzel. Although the tree won't grow taller than 8–10', it can easily grow 30' wide over time. Give it room! Pink buds and profuse pure-white fragrant single flowers seem to bloom forever. Birds are crazy about its mass of small dark red-purple persistent fruit. Plant this crab by your winter birdwatching window. Dark green foliage. Sargent collected seed from this tree in a brackish swamp, suggesting its tolerance to salt. Disease resistant. Z4. **ME Grown.**

339A Sargent Crabapple, $25.00

Thunderchild 15-20' x same. Percy Wright intro, COPF Saskatoon, Sask, Canada, 1978. Selected as the "Celebrate Saskatchewan" tree of 1980. Small to medium-sized tree with an upright spreading rounded form and single bright pinkish-red flowers. The dark green foliage turns an outstanding deep purple as spring turns to summer. Dark purple-red $^{1}/_{2}$" somewhat persistent fruit. Teacher, writer and lifelong nurseryman Percy Wright described his one crabapple introduction as "a chance seedling given to the Forestry Station, resistant to blackspot." Named to honor Mistawasis Cree Chief Thunderchild (1849-1927). Highly resistant to fireblight and extremely hardy. Z3 or maybe even Z2.

340A Thunderchild Crabapple, $25.00

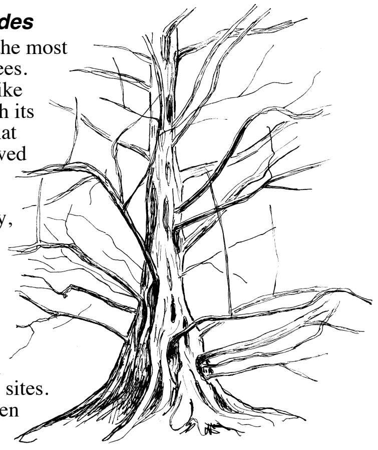
Zumi Variant 24x16' (*Malus baccata* x *M. sieboldii*) Arnold Arboretum, 1955. **Accession 696-55*A.** Medium-small umbrella-shaped tree with flashy red buds and pure white bloom. Small persistent greenish-yellow fruit with a red cheek. Medium-green foliage. An obscure variety that has likely never been offered in any catalog. If you're a fan of Zumi 'Calocarpa' as I am, but you're looking for a tree of more manageable size, this might be perfect for you. The Arnold specimen is now over 60 years old and still rather small. (Their Calocarpa is six times as large.) The umbrella form with its rather horizontal lower branches creates a nice spot for a shady read or tea for two. Originated in Boston, in the gardens of nature and history writer Francis Parkman. Extremely rare. Z4. **ME Grown.**

341A Zumi Variant Crabapple, $25.00

Crabapples are really just apples in disguise. They prefer full sun and deep well-drained soils of 5.5–6.5 pH but they are quite forgiving and will thrive in many locations with a little TLC. They don't like to be drowned or starved for water, and they do need to be protected from borers, mice and deer. See instructions on pages 6 and 7.

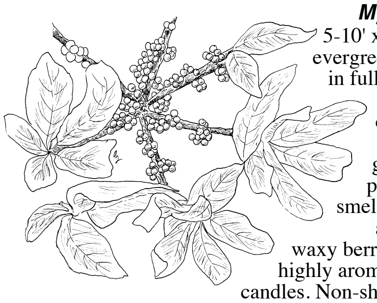
Pruning Crabapples

Most crabapples require little or no pruning except when a branch is broken or you feel compelled to shape your tree in one way or another. Allow each tree to assume its own unique form.



Metasequoia glyptostroboides
Dawn Redwood 100' One of the most spectacular of the ornamental trees. The wide irregular trunk looks like something out of a fairy tale with its iridescent golden-orange bark that becomes deeply grooved, hollowed and fluted with age. The bright green deciduous needles turn orange in the fall. Grows quickly, up to 50' in 15–20 years, with many small-diameter horizontal branches and a uniform conical habit. Give it lots of space to grow! Highly adaptable, easy to transplant. Prefers moist deep well-drained slightly acid soil in full sun. Will tolerate wet or dry sites. Pollution resistant; good specimen or street tree, rarely needs pruning. Fossils dating back 50 million years have been found in Japan. Thought to be extinct until it was "rediscovered" in central China in 1941. Resembles California redwoods only vaguely. Native to China and Japan. Z4. **ME Grown.** (1-3')

342A Dawn Redwood, $12.00

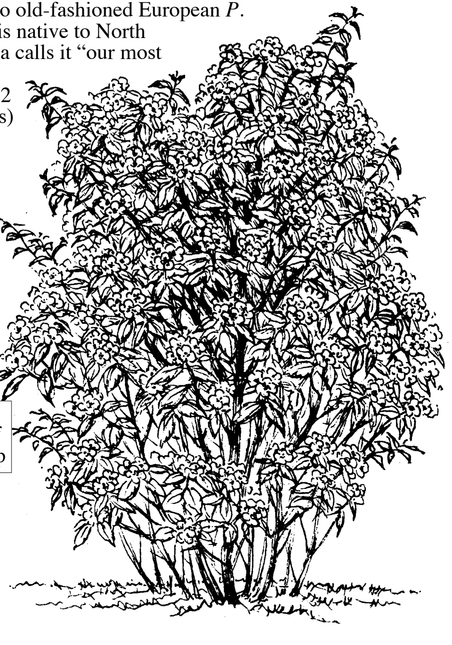


***Myrica pensylvanica* Bayberry** 5-10' x same. Rounded deciduous semi-evergreen very salt-tolerant shrub thrives in full sun to partial shade and in sandy poor soils to heavy clay soils. A common sight on Maine's coastal islands. Rubbing the glossy deep green leaves between your fingers produces one of the most delicious smells in the world. Leaf and root teas are medicinal. Small greyish-blue waxy berries produced on female plants are highly aromatic, historically used for making candles. Non-showy flowers appear in late spring followed by fruit production during summer into late fall. Plants feed numerous wildlife species and are especially craved by swallows. Excellent in masses or hedges, tends to sucker. Fixes nitrogen. Tends toward being dioecious: male and female plants required for good fruit development. We're offering unsexed plants; plant several if you desire fruit. Native to eastern U.S. Z2. (1-3')

343A Bayberry, $14.00
343B Bayberry, bundle of 5 for $63.00

***Philadelphus lewisii* 'Blizzard' Mockorange** 3-10' x 4-6' COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure-white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray of golden yellow anthers attractive to bees and butterflies accents each flower. The contrast of the flowers and deep dark blue-green foliage is lovely. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich well-drained soils but will grow well in most conditions. Full sun to partial shade. Since blossoms form on prior year's growth, best to prune after flowering. Similar to old-fashioned European *P. coronarius*, but this one is native to North America. William Cullina calls it "our most ornamental Philadelphus species." Z3. **ME Grown.** (2 yr well-rooted transplants)

344A Blizzard Mockorange, $16.00



ME Grown = grown in Maine by a member of the Fedco growers coop

EVERGREEN TREES.

Conifers tolerate a wide range of soil conditions, but prefer a pH between 5.5–6.5. If you are planting in dry or well-drained areas, dip tree roots in Agri-gel solution before planting to protect roots from drying out. Do not use Agri-gel in heavy clay soils or wet areas. Do not soak conifers overnight; a good dipping is sufficient.

Before planting, prune off $^{1}/_{3}$ of the roots. Dig a small hole or make an incision with a spade or planting bar and slip the tree in to the level it grew in the nursery. Fan the roots out; do not wind them around in the hole. It is much better to prune the roots than to crowd them in the hole. Water well and pack the earth down with your feet to remove air pockets.

Young conifers need $^{3}/_{4}$-1" of rain per week. Periodic deep waterings are far more beneficial than frequent sprinklings. No fertilization is necessary in the first year. In later years you may fertilize around the drip line.

To make evergreens dense and compact, remove central leader and center bud on the end of each side branch.

Picea abies **Norway Spruce** 80' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruces. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway Spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy (marketable!) 4–6" cones. Bright green foliage. Prefers loam but does better than other spruces in poorer soils. Native to northern Europe. Grown in Maine. Z2. (9-18")

345A Norway Spruce, bundle of 5 for $16.50

P. pungens **var.** ***glauca*** **Colorado Blue Spruce** 30-60' Very popular specimen tree with truer blue foliage than other varieties. Can be used as a screen, as it is fast growing after 3'. There's a beautiful specimen on a lawn facing the Kennebec River near the Hinckley Bridge that owners have dubbed "Bruce the Spruce." So lovely you might want to name yours. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for first few years. Native to western U.S. Z2. (1-3')

346A Colorado Blue Spruce, bundle of 5 for $16.50

Pinus strobus **Eastern White Pine** 100' or more. The largest northeastern conifer. Magnificent and massive when mature. Two hundred years ago the white pines in Maine were typically 250' tall. Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. A cup of pine needle tea has more vitamin C than a cup of orange juice; Native Americans showed early white explorers how to brew it and stave off scurvy. The resin has numerous practical and medicinal applications. Excellent wood with a thousand uses. When grown in abandoned fields, it develops huge curving branches. Grown in the forest it will typically be "clear" for the first 30–80'. Planted thick and sheared, it makes a beautiful hedge that won't drop its lower branches. Likes ordinary to poor—even sandy—soil. Shade tolerant, but does not like salt or roadsides. Fast-growing. Native eastern U.S. Grown in Maine. Z3. (9-18")

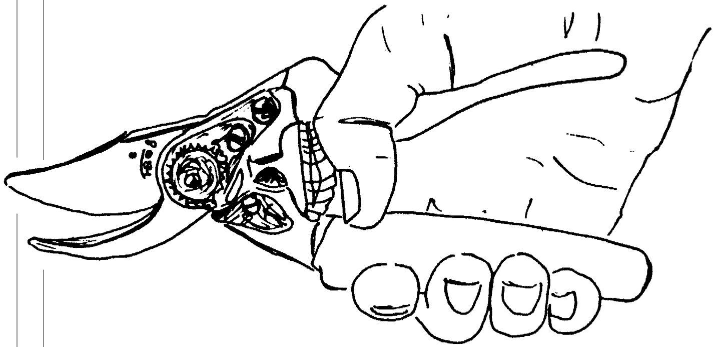
347A Eastern White Pine, bundle of 5 for $16.50

Agri-gel A hydrogel formulation which absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with one to three gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. *Not allowed for organic certification.* $^{1}/_{2}$ oz.

L560A Agrigel, $3.00

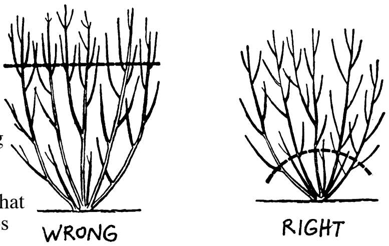
Prune Ornamental Shrubs, Trees and Berries for:

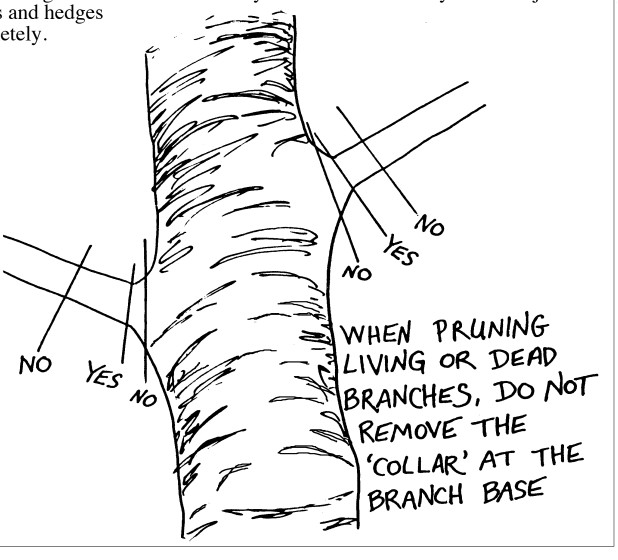
- Rejuvenation: older canes (three years and older) can be cut off at the ground line each year to encourage the growth of new canes.
- Health: remove broken, dead or diseased branches for neatness and vigor and to increase airflow and access to sunlight.
- Vitality: prune to encourage better blooms and fruit rather than heavy excessive vegetation. Many shrubs send up new vegetative growth from the terminal bud. Pruning the terminal bud redirects the plant's energy back to some of the lateral flowering and fruiting buds.
- Containment: certain varieties sucker from the roots; remove these suckers unless you want the shrub to spread and form colonies.
- Shape: if you desire a tall tree with a high crown, prune the lateral branches from the trunk and prevent formation of low crotches. For a low, stocky tree used in screens and windbreaks, cut back the top shoots to force side growth. Retain natural arching habits and prevent the shrub from becoming top-heavy by pruning branches after flowering.

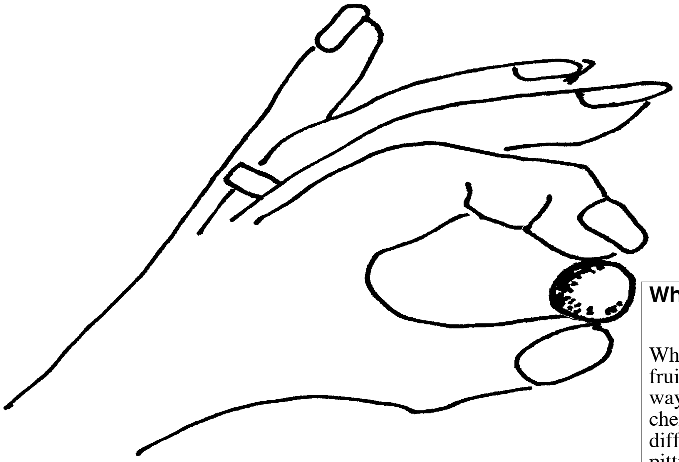


A few essential guidelines:

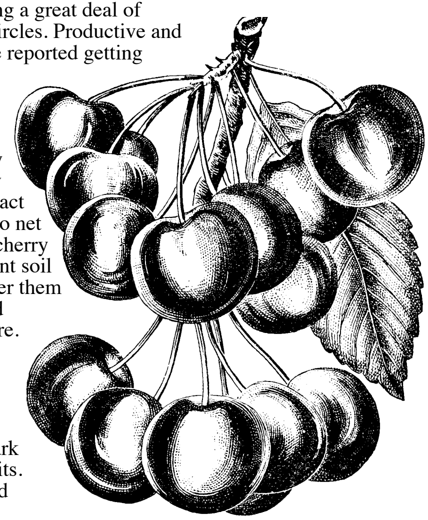
- **Summer-Flowering Shrubs** should be pruned in late winter or early spring, before the new wood begins to grow. These shrubs blossom on the new wood they produce in the spring.
- **Spring-Flowering Shrubs** form flower buds in the summer, after they are finished blooming. Prune them immediately after their bloom is over. If you wait and prune them in the winter or following spring, you will likely remove many flowering buds.
- A common error is to prune shrubs straight across the top. This encourages top-growth and the lower part of the shrub becomes woody and unsightly with less foliage. Proper pruning promotes growth at the base of the shrub.
- Observe your plants and see what they need. Some trees and shrubs benefit from aggressive pruning each year and might even respond well to being cut all the way back to the ground; others will respond by delaying fruit or blossom. Some plants thrive with little or no pruning.
- Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year. They will send forth new shoots in late spring and will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and hedges completely.




NO
YES
NO
NO
YES
NO
WHEN PRUNING LIVING OR DEAD BRANCHES, DO NOT REMOVE THE 'COLLAR' AT THE BRANCH BASE



Prunus x _kerrasis_ Dwarf Sour Cherry New crosses between sour and Mongolian cherries are causing a great deal of excitement in fruit-growing circles. Productive and delicious. Some growers have reported getting 20–30 lbs per bush after 3–5 years. In our trials now in Palermo, and after only three years we are already seeing fruit. Fruits are approximately the size of a small sour cherry and ripen in early July. Compact plant size makes it far easier to net against birds than a standard cherry tree. Prefers full sun and decent soil with a pH of about 6.5. Pamper them with mineral amendments and compost. Self-pollinating. Rare. Z3. (1-3')



_P._ x _k._ 'Carmine Jewel' About 6-7' x same. Midsummer. University of Saskatchewan intro, 1999. Dark purple skin and flesh, small pits. Good for both fresh eating and processing. **ME Grown.**

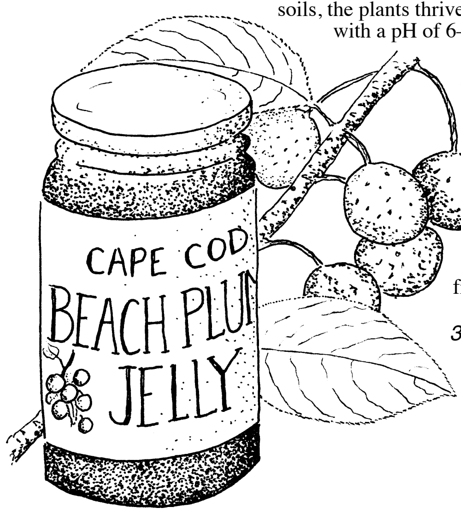
348A Carmine Jewel Dwarf Cherry, $21.00

_P._ x _k._ 'Crimson Passion' 4-5' x same. Late Summer. Sibling of Carmine Jewel. U of Saskatchewan intro, 2006. Released for export to the U.S. in 2011. Large dark red fruit. Excellent fresh eating with high sugar content and firm flesh. **ME Grown.**

349A Crimson Passion Dwarf Cherry, $22.00

P. maritima Beach Plum 6' x 5-6' Rounded dense suckering shrub found along ocean beaches, New Brunswick to the Carolinas. In spring, beautiful showy white blooms cover the dark branches making a lovely contrast. Purplish-red $^{1}/_{2}$–1" fruit in late summer. Excellent jams, sauces and especially jelly. Although typically found growing naturally in poor sandy soils, the plants thrive in well-drained fertile soils with a pH of 6–6.5. Additional fertilization will further increase productivity. We suggest an annual 5-gallon bucket or two of compost per plant. Prune to maintain an open center for good light penetration. Plant about 5' apart. Although pollination requirements are uncertain, we recommend planting at least 2 for good fruiting. Salt tolerant! Native to eastern U.S. Z3. (1-3')

350A Beach Plum, $14.00



ME Grown = grown in Maine by a member of the Fedco growers coop

P. tomentosa Nanking Cherry 6-10' x same. Broad dense highly ornamental fruiting shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white $^{3}/_{4}$" flowers. Deeply veined light green foliage with very fine fuzz (tomentosa) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of fruit that actually *is* edible! Scarlet $^{1}/_{2}$" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Said to make a good pie but pitting would require quite a bit of work. Covering plants with netting will deter birds from robbing your crop. Prefers full sun in well-drained soil. Plant two or more for pollination. Native to China and Japan. Z2. (1-3')

351A Nanking Cherry, $14.50

What to do with Nanking Cherries

—by Cammy Watts

When your Nanking Cherry bushes produce an abundant crop of vibrant red fruits in early July through early August, it is worth knowing a few different ways they can be processed, as figuring out how to use all these tart and juicy cherries can be a challenge. The bushes are such big producers that it would be difficult to eat them all fresh unless you were feeding a small camp. I tried pitting them with my cherry pitter with the idea of drying them, but I had to adapt it to their smaller size and the return on the investment of my time wasn't worth it. The pits are too big relative to the size of the fruits to pit them one at a time.

So instead I decided to try my hand at Nanking Cherry jelly. I tried two different recipes that produced quite different results. The jelly was delicious, but I was left with a lot of pulp. Seemed like the perfect thing to make into fruit leather. Turned out to be even better than the jelly. Here is what I did:

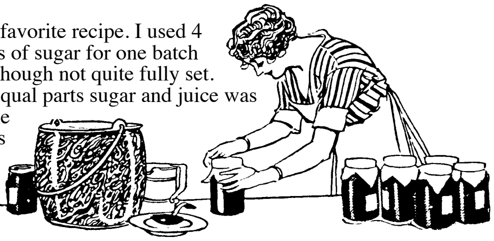
Nanking Cherry Jelly

Put the cherries in a big pot with an inch or so of water on the bottom, and bring to a boil. Simmer for about 10 minutes or until very soft.

Pour the contents into a jelly bag suspended over a bowl, and strain for several hours.

Even if you resist the temptation to squeeze the jelly bag, the juice that drips through may be a bit cloudier than other jellies. It will still taste great.

Make jelly with your favorite recipe. I used 4 cups of juice to 2$^{1}/_{2}$ cups of sugar for one batch which was very tasty although not quite fully set. The batch I made with equal parts sugar and juice was completely gelled but the tart flavor of the cherries was not as apparent. My taste testers all voted for the low-sugar version.



Nanking Cherry Fruit Leather

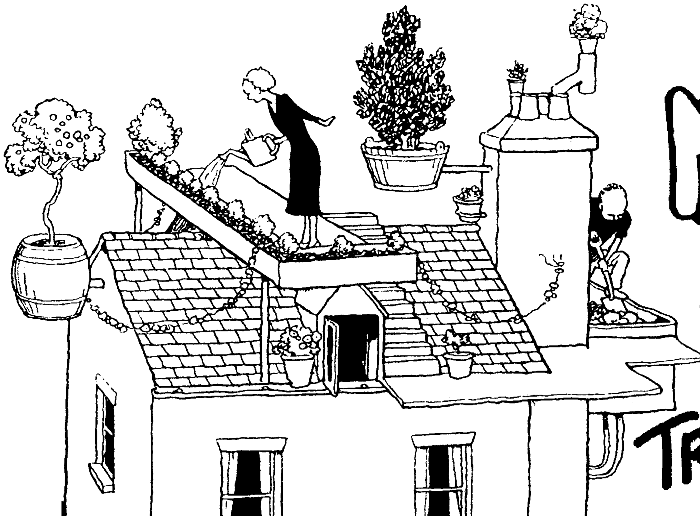
Once the juice has stopped dripping through the jelly bag, empty the remaining pulp and pits a scoop at a time into a colander that is set over a large bowl. Using the back of a ladle or wooden spoon, smoosh the pulp off the pits and through the holes in the colander into the bowl. This takes awhile, but the results are worth it. In fact after I had rubbed the pulp off the pits the first time, I put the pits back in a little water, boiled them for a few minutes more, and did it again. (This may be overkill but I didn't want to waste any pulp, and those pits just seem to hold onto it.)

Once the pulp is separated from the pits, put the pulp in a pot, add honey to taste and a bit of lemon juice, and simmer until the pulp is thick and spreadable.

Spread the thick pulp onto a drying tray about $^{1}/_{8}$–$^{1}/_{4}$" thick. Place in your solar dryer, dehydrator or low-temperature oven and dry. I used a homemade solar drier and the fruit leather dried in less than 12 hours on a sunny July day.

P. virginiana 'Schubert Select' Chokecherry 25' x same. Oscar H. Will intro, Bismarck, ND, 1943. Also called **Purpleleaf Chokecherry**. Small upright pyramidal tree or large suckering shrub with highly ornamental foliage and attractive densely clustered edible berries used to make jam, jelly, pie, syrup, sauce, juice and wine. Attracts birds and butterflies. Leaves emerge green with a slight waxy bloom, becoming purple-red in summer, burgundy in autumn. In late April or early May, fragrant white flowers appear on racemes up to 6" long followed by crimson to dark purple pitted berries. Cook, dry or juice the astringent fruit. Do not eat the poisonous seeds! Native Americans used dried chokecherries in pemmican and made dyes and medicinal tea from the bark. Prefers dry to medium well-drained soils, full sun to partial shade. Will form colonies. Nice as a hedge or pruned to a single specimen. Self-fertile. Planting more than one may increase pollination. Species native to North America. Z2. (1-3')

352A Schubert Chokecherry, $14.00



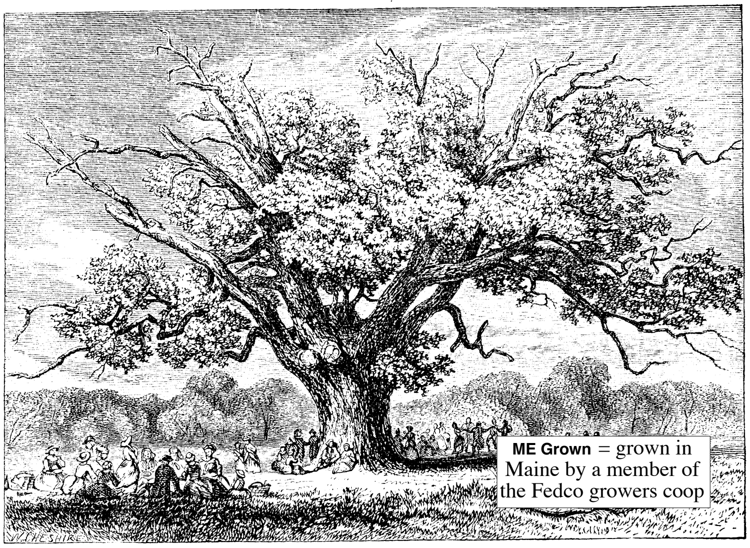
NURSERY

PLANTS @ A GLANCE

TREES · SHRUBS · PERENNIALS

Page	Name	Native Plant	Edible Landscape	Medicinal Plant	Orchard Companion	Drought Tolerant	Wet Tolerant	Shade Tolerant	Hedges	Specimen	Ground Cover	Vine or Climber
39	Amelanchier, Juneberry	◆	◆			◆	◆		◆			
39	Amelanchier, Serviceberry	◆	◆			◆		◆				
10-19	Apple		◆							◆		
23	Apricot		◆									
57	Arborvitae	◆		◆			◆	◆	◆			
69	Arnica	◆		◆	◆		◆				◆	
40	Asparagus		◆									
47	Bayberry	◆		◆		◆		◆	◆			
39	Bearberry	◆		◆		◆					◆	
40	Birch, Yellow	◆		◆			◆			◆		
68	Black Cohosh	◆		◆			◆	◆		◆		
45	Black Walnut	◆	◆	◆						◆		
27	Blueberry, Highbush	◆	◆		◆		◆		◆	◆		
27	Blueberry, Lowbush	◆	◆	◆		◆					◆	
39	Buckeye, Bottlebrush	◆							◆	◆		
69	Boneset	◆		◆	◆		◆		◆	◆		
40	Butterfly Bush					◆			◆	◆		
61	Butterfly Weed	◆		◆	◆	◆						
41	Buttonbush	◆					◆	◆	◆	◆		
41	Catalpa	◆								◆		
23-24	Cherry, Sweet, Pie		◆							◆		
42	Cherry, Cornelian		◆			◆			◆	◆		
49	Cherry, Dwarf Sour		◆						◆			
49	Cherry, Nanking		◆						◆			
41	Chestnut, American	◆	◆			◆				◆		
40	Chokeberry, Red, Black	◆	◆	◆		◆	◆		◆			
49	Chokecherry	◆	◆	◆		◆	◆		◆	◆		
70	Comfrey			◆	◆				◆			
46-47	Crabapple		◆						◆	◆		
57	Cranberry, American	◆	◆	◆		◆	◆				◆	
58	Cranberry, Highbush	◆	◆	◆			◆		◆	◆		
68	Culvers Root	◆		◆	◆	◆			◆	◆		
47	Dawn Redwood						◆			◆		
42	Dogwood, Kousa		◆		◆		◆		◆	◆		
42	Dogwood, Pagoda	◆			◆			◆		◆		
42	Dogwood, Redosier	◆			◆		◆		◆			
39	Dutchman's Pipe	◆						◆				◆
69	Echinacea	◆		◆	◆	◆						
55	Elderberry	◆	◆	◆	◆		◆		◆	◆		
57	Elm, American	◆				◆	◆			◆		
62-63	Fern	◆					◆	◆			◆	
34	Fir, Balsam	◆		◆				◆	◆	◆		
43	Forsythia								◆	◆		
62	Foxglove, native	◆			◆			◆		◆		
69	Ginger, Wild	◆	◆	◆				◆			◆	
43	Ginkgo		◆	◆						◆		
30-31	Grape	◆	◆			◆						◆
39	Groundnut	◆	◆				◆					◆

Page	Name	Native Plant	Edible Landscape	Medicinal Plant	Orchard Companion	Drought Tolerant	Wet Tolerant	Shade Tolerant	Hedges	Specimen	Ground Cover	Vine or Climber
43	Hawthorn		◆	◆					◆	◆		
43	Hazelnut	◆	◆					◆	◆			
41	Heather		◆	◆		◆			◆	◆		
41	Hickory, Shagbark	◆	◆							◆		
45	Honeyberry		◆	◆		◆			◆			
43	Honeylocust	◆	◆	◆		◆	◆			◆		
44	Hops			◆				◆				◆
39	Horseradish		◆									
64	Hosta							◆		◆		
44	Hydrangea							◆	◆	◆		
65	Iris, Siberian						◆			◆		
34	Kiwi, Hardy		◆									◆
45	Larch, American	◆		◆			◆			◆		
65	Lavender			◆		◆			◆	◆		
56	Lilac					◆			◆	◆		
61	Lily of the Valley					◆		◆			◆	
57	Linden	◆	◆	◆				◆		◆		
58	Lingonberry	◆	◆			◆					◆	
66	Lobelia	◆			◆		◆	◆				
34	Maple, Red	◆					◆			◆		
34	Maple, Sugar	◆	◆					◆		◆		
47	Mockorange	◆							◆	◆		
56	Mountain Ash, European		◆	◆	◆				◆	◆		
52	Oak, Bur	◆	◆							◆		
52	Oak, Swamp White	◆	◆				◆			◆		
24-25	Peach		◆							◆		
20-22	Pear		◆							◆		
22	Pear, Asian		◆							◆		
41	Peashrub, Siberian		◆		◆	◆			◆			
48	Pine, White	◆		◆				◆	◆	◆		
49	Plum, Beach	◆	◆			◆			◆			
26	Plum, European		◆							◆		
25-26	Plum, Hybrid		◆						◆			
68	Pulmonaria							◆			◆	
43	Quince, edible		◆							◆		
42	Quince, flowering		◆						◆	◆		
28	Raspberry	◆	◆	◆					◆			
42	Redbud	◆								◆		
52	Rhubarb		◆	◆								
53	Rosa rugosa		◆	◆		◆			◆			
53	Rose, Cinnamon								◆	◆		
53	Rose, shrub									◆		
53	Rose, Charles de Mills		◆	◆						◆		
53	Rose, John Davis									◆		◆
53	Rose, Scharlachglut		◆	◆						◆		
67	Sage, Russian					◆				◆		
44	Sea Buckthorn		◆	◆		◆			◆			
43	Smoketree	◆						◆	◆	◆		
68	Solomon’s Seal	◆		◆				◆	◆			
45	Spicebush	◆	◆	◆			◆	◆	◆			
56	Spirea, Hardhack	◆			◆		◆		◆			
48	Spruce, Colorado Blue	◆				◆			◆	◆		
48	Spruce, Norway					◆			◆	◆		
29	Strawberry		◆								◆	
63	Strawberry, Alpine	◆	◆	◆							◆	
42	Summersweet, Clethra	◆			◆		◆	◆	◆	◆		
69	Sweet Cicely		◆	◆	◆	◆						
42	Sweetfern	◆		◆		◆		◆				
68	Tansy				◆	◆	◆	◆	◆			
58	Viburnum, N. Wild Raisin	◆	◆				◆		◆			
58	Weigela								◆	◆		
61	White Turtlehead	◆					◆	◆				
54	Willow, Blue Leaf Arctic				◆		◆	◆	◆			
54	Willow, Dutch Timber						◆			◆		
54	Willow, Fantail				◆		◆		◆			
54	Willow, Pussy				◆		◆		◆	◆		
54	Willow, Weeping			◆			◆			◆		
44	Winterberry	◆		◆			◆		◆			
43	Witch Hazel	◆		◆			◆	◆	◆	◆		



ME Grown = grown in Maine by a member of the Fedco growers coop

***Quercus* Oak** Many oaks are native to New England. They are generally divided into two groups: the reds and the whites. The reds have pointier leaves and the whites have rounder ones. Most of them make absolutely breathtaking shade trees, having the capacity to provide a major presence in almost any landscape. Some are nearly godlike in stature. All can be categorized as both edible and medicinal. The strongly astringent inner bark, foliage and acorn caps are all medicinal. Most importantly however, acorns were an extremely important human food source for thousands of years. Oaks are monoecious so you need only one to get fruit.

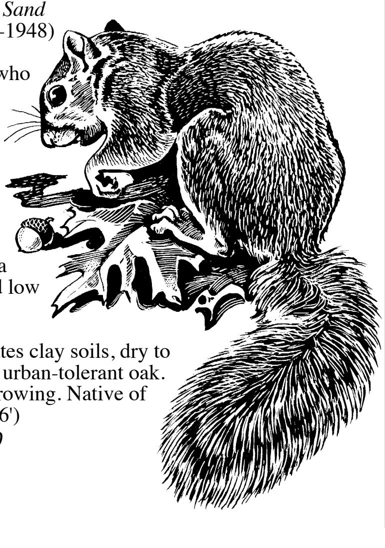
Contrary to much of the literature, all acorns are edible, both reds and whites. When fresh, all of them are bitter, astringent, high in tannin, and basically inedible. There is no perfect edible acorn ready to pop into your mouth right off the tree. All require substantial hot or cold leaching, a process that removes the tannins through repeated soaking or boiling. Once that's done, the resulting mash can be dried and stored and used like flour or eaten as we might eat rice or oatmeal. High in starch and oil, moderate in protein. Storeable in the nut form for years. For detailed instructions on acorn processing, see Samuel Thayer's book, *Nature's Garden*.

***Q. bicolor* Swamp White Oak** or **Bicolor Oak** 50-60' x same. A massive rounded shade tree with a short deeply ridged trunk and a fan of branches, the uppermost ascending and the lower drooping. The contrast between the light grey bark and the dark trunk fissures is particularly striking. Called Swamp White in recognition of its affinity for the wild low wetlands that once peppered eastern North America before the days of the parking lot and the Big Box. Called Bicolor because its large thick leathery lobed leaves have a glossy dark green upper surface and a white to greyish-green hairy felty underside. Its large $1^1/_2$" sweet acorns are highly attractive to wildlife, particularly waterfowl, sapsuckers and (ugh) squirrels. Its yellow to reddish-purple fall foliage persists until spring. Prefers moist acid soils where drainage is poor, but exhibits excellent drought resistance as well. Very fast growing once established. Native to northeastern U.S. Z3. (3-6')

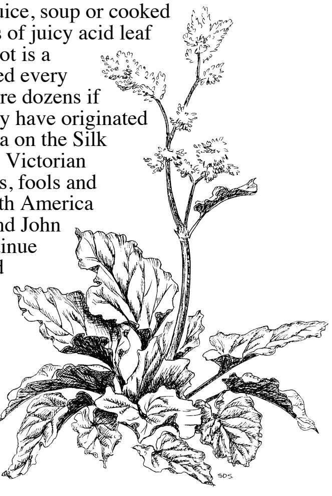
353A Swamp White Oak, $17.00

***Q. macrocarpa* Bur Oak** 70-80' x same. Hardiest of the white oaks with a deeply grooved and massive trunk, and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged, and tend to twist and kink. Jen first learned of bur oaks and their impressive resistance to prairie fires in Aldo Leopold's *A Sand County Almanac*. Leopold (1877-1948) was an ecologist and pioneer conservationist who wrote, "He who owns a veteran bur oak owns more than a tree. He owns an historical library, and a reserved seat in the theatre of evolution." The habit is upright and somewhat vase-shaped. Lustrous dark green foliage 4–12" long. Large 1–2" acorns, each almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they supposedly make a decent coffee substitute. Needs full sun. Tolerates clay soils, dry to moist, acid to alkaline. The most urban-tolerant oak. Pyramidal in youth. Fairly fast growing. Native of eastern U.S. and Canada. Z3. (3-6')

354A Bur Oak, $17.00



***Rheum rhabarbarum* Rhubarb** Early Summer. Famous for pie and wine, but also good in sauce, bread, juice, soup or cooked with meat and fish. Rhubarb's clumps of juicy acid leaf stalks were once a staple food. The root is a toning purgative herb traditionally used every spring for thousands of years. There are dozens if not hundreds of rhubarb varieties. May have originated in Siberia and been carried across Asia on the Silk Road to Turkey and then into Europe. Victorian cookbooks included rhubarb compotes, fools and charlottes. Eventually brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance, will continue through summer if stalks are removed and new leaves allowed to grow. Water during dry spells for extended season. Add compost when planting and give ample room for 3–4' large stalks to grow. Leaves are *not* edible. Z3. **ME Grown**. (2-yr crowns)



***R. r.* 'Fräulein Sharfer Torte'** Very stocky vigorous tart stalks are green with blushes of red. Leaves are gently ruffled. German cultivar known in Europe for its excellent culinary qualities. **ME Grown**.

L355A Fräulein Sharfer Torte, $10.00

***R. r.* 'Glaskins Perpetual'** Long juicy vigorous stalks are green with blushes of red. Leaves are more pleated than ruffled. Acid levels remain low for tasty late-season harvests, hence the name. First listed in England in 1920. **ME Grown**.

L356A Glaskins Perpetual, $10.00

Rhubarb

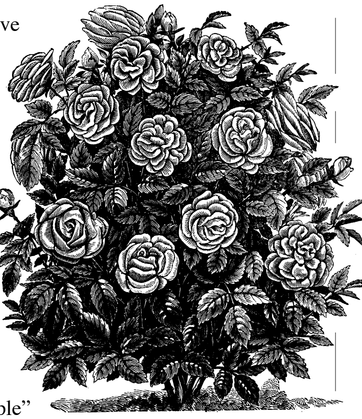
Plant the top of the root division level with the surface in well-prepared well-drained rich slightly acid soil (pH 5.5–6.5). Add a bushel of well-rotted manure or compost under each crown. When plants are established, fertilize liberally with manure and balanced garden fertilizer or compost every spring, as it's a heavy feeder. Harvest for four weeks two years after planting. Thereafter you can harvest for 8–10 weeks each year. Never remove more than $^2/_3$ of the stalks from a plant.

Every ten years or so, divide plants in early spring, leaving about $^1/_3$ of the crown in place. Cut up the remainder into fist-sized pieces and replant.

Roses prefer full sun (at least 4–6 hrs per day) and a pH of 6.0–7.0. Space them 4–6' apart. They will do well in most well-drained soils with a good amount of organic matter. In locations with poor drainage, add gravel at the bottom of the planting hole, or build in drainage. Pick a site with good air drainage, but avoid sites with cold northwest winds. Avoid competition with tree roots

Plant roses as early as soil can be worked. Most roses' roots don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. We recommend a bale of rotten hay in the bottom of the planting hole. Mix soil with liberal quantities of well-rotted manure and compost. Add a coffee-can full of rock phosphate or bone meal. Soak roots in water overnight or up to three days before planting. Prior to planting, prune roses back to 3 canes, 2–5" tall. Plant them 1" below the level they were in the nursery. Add water as you fill in the hole to puddle it in. Mound soil around branches to prevent them from drying out, and to encourage buds to sprout. As the buds open, pull back the soil to the correct level.

Shrub roses and climbers will require little pruning in later years. Any pruning should wait until after the forsythia blooms. Remove dead or broken branches, and periodically cut out the oldest wood. Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of composted manure to each crown late in the fall. For more information see Suzanne Verrier's pamphlet *Growing Old-Fashioned Hardy Roses Organically,* available in the book section of our Seed Catalog.



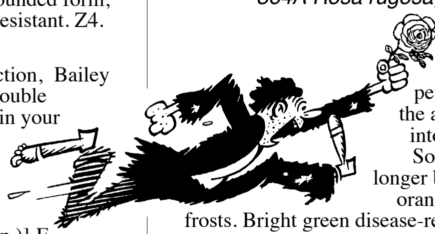
Rosa **Rose** For millennia, humans have been beguiled by the rose. The first cultivation of these flowers dates back to over 5000 years ago in China. Fossil records suggest that roses may have been around for over 30 million years. Regarded as the ultimate icon of love, grace, beauty and elegance, roses continue to be the subject of art and poetry across the world.

And there's more! Roses have long been used in medicine, food, tea and essential oils. In the first century, Pliny the Elder recorded over 30 uses of rose medicine! Rose leaves, petals, hips and roots all have medicinal properties to treat a range of disorders from wounds to stomach problems. Rose hips are rich in vitamin C and make a wonderful "rose apple" jam; rose-petal elixir calms the nerves and lifts the spirit; rose water is used in delicious recipes; rose-petal jam is fantastic!

Each year, we aim to offer a diverse selection of hard-to-find rose varieties and at least one representative exhibiting traits of the following categories: climbing habit, shrub form, gallicas, species, fragrance, large hips, yellow, red, pink, white, apricot and beyond! If your favorite is not on the list this year, we may offer it in the future. Unlike hybrid tea roses, these roses are not to be pampered; all are vigorous, rugged, hard to kill, exceedingly hardy and disease- and pest- resistant. Many of our roses are propagated and grown without pesticides in a small nursery in Canada, just over the border. See our Rose sidebar for detailed cultural information. Native to temperate regions around the world. (1-3')

R. **'Carefree Sunshine'** 3-4' x same. Cross between two unnamed seedlings. William Radler intro, RADsun, 2001. Lemon-yellow to light yellow subtly fragrant semi-double flowers start in late spring and repeat until frost. Flowers in clusters of 3–5 resist fading even in summer heat. Glossy dark green foliage turns bronze-green in fall. Compact rounded form, suitable for garden specimens, borders or hedges. Very disease resistant. Z4.

357A Carefree Sunshine Rose, $14.00



R. **'Coral Cove'** 2' Complex hybrid. Easy Elegance Collection, Bailey Nursery, BAIove, 2013. Compact everblooming shrub with 3" double flowers whose vibrant color is so spectacular they will stop you in your tracks. Blossoms radiate yellow from the center then orange which becomes coral pink towards the edges. Easy to grow, virtually maintenance-free. Disease resistant. Z5.

358A Coral Cove Rose, $14.00

R. **'John Davis'** 6-8' [*R. kordesii* x (Red Dawn x Suzanne o.p.)] F Svejda intro, Canadian Explorer Series, AAFC, Morden Stn, 1986. From July through September this everblooming rose is seldom without numerous large clusters of 3–4" semi-double deep pink blossoms exuding a strong spicy fragrance. Up to 40 petals per flower! Arching red canes can easily be trained upright as a short climber on a fence or arbor. Glossy green foliage turns from green to red as it matures and is resistant to black spot. Often produces flowers the first year it is planted and will bear abundantly in years after. Very hardy to below –20° and rarely winter kills. Disease resistant. Z3.

359A John Davis Rose, $14.00

R. **'Nicolas'** 2-3' x same. Complex cross derived from Queen Elizabeth, Arthur Bell, Applejack, and *R. kordesii*. Explorer Series, Canada, 1996. Hardy shrub rose repeatedly blooms with abundant clusters of semi-double bright scarlet flowers from June through September. Approximately 20 petals per flower. Disease resistant. Z3.

360A Nicolas Rose, $14.00

R. cinnamomea **Cinnamon Rose 'Plena'** 6 x 4-6' Large highly fragrant double pink ruffled-looking blossoms with strong fragrance of cloves. Rare species rose, most likely brought to North America by early settlers from France. Occasionally found near old abandoned farmsteads. Difficult to find commercially. Forms a dense low-growing thicket. Very little maintenance and will easily naturalize itself in a range of different soils and sites. Z4.

361A Plena Cinnamon Rose, $14.00

Rose Petal Jam

Rose Petal Jam

The color of this jam is exquisite—it has a sort of shimmering light-capturing quality that is hard to explain—looks like melted quartz infused with roses, almost too beautiful to eat.

"Simply alternate layers of a few handfuls of fresh Rosa rugosa petals and a pound of cane sugar. After a few weeks, the moisture of the rose petals allows the sugar to liquefy and form the body of the jam. The petals become insubstantial and the essence diffuses through the jam. I got the recipe from my mother-in-law, an original MOFGA member from the '70s. She rescued and propagated the unidentified 'Sara's Stars' daffodil bulbs from Brookline, MA (sold via Fedco Bulbs). Enjoy!" –Colin Cassie

(Update: Fedco Bulbs has now identified Sara's Stars and lists it in their catalog as 'Stella'.)

R. gallica **'Charles de Mills'** 5x5' Parentage unknown. Most likely originated in Germany and named in France in the 1800s. Classic old garden rose with vivid ruby, purple and deep pink blossoms. Large aromatic very double blossoms open flat with petals so plentiful the flower naturally divides itself into "quarters." The soft velvety saucer-like blossoms appear to have been almost sheared across the top. One of the most popular and showy of all the gallicas. Robust hardy shrub, easy to grow in full sun and well-drained fertile soil. Dark glossy green foliage is moderately resistant to black spot and other foliar diseases when given sufficient air flow. Z4.

362A Charles de Mills Rose, $14.00

R. g. **'Scharlachglut'** 8-13' x 5-8' Kordesii hybrid. [Poinsetta x Alika (*R. gallica grandiflora*)] Kordes, Germany, 1952. Large arching shrub with scarlet single-petalled 3" blossoms. Most often grown as a shrub rose but could also be trained to a post or arbor. German for 'Scarlet Glow' which is quite suited to its vivid red flowers, each centered with a golden crown of stamens, which contrast attractively against deep lush green-red foliage. Large orange urn-shaped hips in fall. Can be pruned back heavily each year to maintain size and form. Prefers full sun but will flower in partial shade. Disease resistant. Z4.

363A Scharlachglut Rose, $14.00

Rosa rugosa 4-6' x same. Also called **Japanese Rose** or **Beach Rose**. Vigorous spreading shrub with dark green wrinkled (rugose) leaves. Flowers range from deep pink to white. Large edible red hips up to 1" are good for jams, teas and fresh eating right off the bush. Deb Soule of Avena Botanicals uses these petals in her much-loved Rose Petal Elixir. Considered by herbalists of Western, Chinese and Ayurvedic traditions to be rejuvenating and cooling. Blooms form on both old and new wood, so pruning necessary only to control size. Prefers full sun and well-drained fertile soil with a pH of 6–7, but will grow in depleted soil and even in sand. Tolerates salt, pollution and drought; practically care-free. Although native to China and Japan and assumed to have been brought here by sailors long ago, there is now reason to believe that the rugosas may have been here for many centuries and may even be native. Z2.

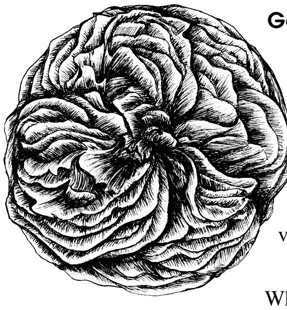
364A Rosa rugosa, bundle of 4 for $14.00

R. r. **'Dart's Dash'** 4x5' *Rosa rugosa* hybrid, parentage unknown. Darthuis Nursery, Netherlands, date unknown. Semi-double (12–16 petals) very large 3–4" crimson-purple flowers fill the air with a lemony scent. Blooms all summer and into fall and can create a stunning hedge or border. Somewhat similar to Hansa but more compact and longer blooming. Terrific fall display of beautiful large orange-red edible hips which soften after a few light frosts. Bright green disease-resistant foliage turns orange in the fall. Z2.

365A Dart's Dash Rose, $14.00

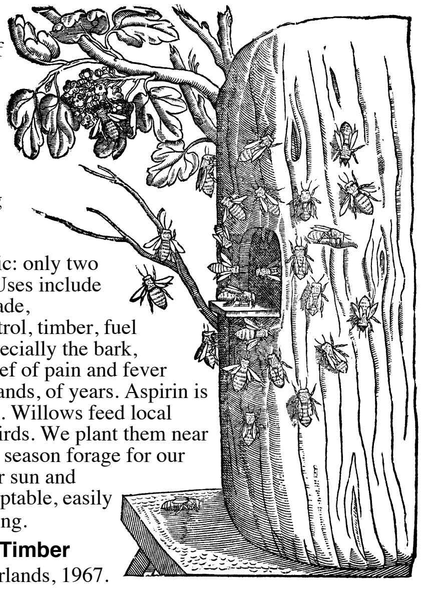
R. r. alba **White Rugosa** 6x6' Large spreading shrub will form colonies along the bank, the seashore or even across your lawn. Pink buds and large 2–3" pure white single 5-petaled flowers with cream-colored stamens. Fragrant, recurrent bloomer. Large orange hips. Orange and scarlet fall foliage color. Incredibly rugged, tolerates clay, muck, sand and salt. Z2.

366A White Rugosa Rose, $14.00



Gallica Roses (also known as Apothecary's Rose or Rose of Provins) are a very old and mysterious species which can be found throughout the history, romantic tales and legends of France. Most modern-day roses are believed to be descendants of the Gallicas. They have been used throughout the ages for ornamental, medicinal and drying purposes, as their petals retain their lovely fragrance better than all the rest. The species includes hundreds of different varieties each with unique flower forms, colors and sizes, though their habit and cultural requirements are fairly consistent and most are hardy to Zone 4. While the exact origin of the Gallica species remains unknown, many claim it was in the Caucasus, the mountainous region between the Black and Caspian Seas. Others say it is native to southern Europe, but a true specimen has never been found in the wild.

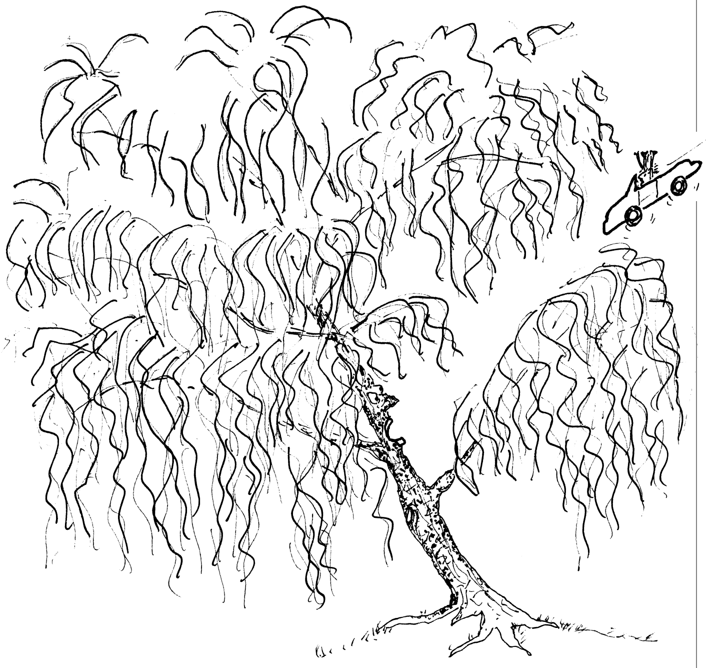
In her book *Rosa Gallica* Suzanne Verrier describes the apothecary industry that boomed for over 600 years in Provins, France, from the semi-double bright crimson rose brought from Syria during the Crusades of the late 11th century. "The apothecaries of that town initiated an industry, making medicinal preparations and other confections from R. gallica 'Officinalis'…selling its products worldwide and bestowing them upon such notables as Joan of Arc, Louis XIV, and Napoleon. As late as 1860, 36,000 kilos (approx. 79,000 pounds!) of Gallica petals were sent to America." Reaching their peak in popularity during the mid 1800s, there were over 2000 gallicas documented, though most cultivars had numerous names. The 20th century demand for repeat bloomers caused the Gallicas to decline in popularity. But they are still sought after by rose lovers all over the world because of their vivid deep colors and unmatched elegance. Gallicas exude a timeless beauty with an antique look, so different from today's modern hybrids.



***Salix* Willow** The genus *Salix* comprises hundreds of different species of plants most commonly called willows but sometimes called **Osier** or **Sallow**. Willows grow all over the world. Some are towering specimens, like the weeping willow. Others are short scrubby bushes, like some willows growing in the arctic: only two feet tall but 100 years old! Uses include ornamental landscaping, shade, basket-making, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for relief of pain and fever for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, bees, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted, and fast-growing.

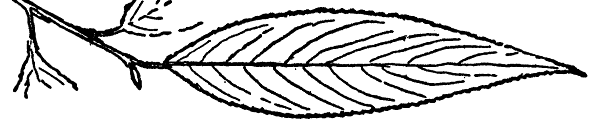
***S. alba* 'Belders' Dutch Timber Willow** 80 x 20' The Netherlands, 1967. Also called **European White Willow**. Large attractive tree with open crown, spreading branches and furrowed bark. The light blue-green-silver leaves (especially the undersides) complement darker greens in the landscape. Commonly planted in Europe where it was pollarded annually: branches were cut back at the same spot to stimulate new growth, creating a knobby end that inspired the common name Knob Willow. This tradition produced renewable kindling wood, whips for making baskets and brooms, and fodder for livestock. Today, pollarding continues for mainly aesthetic purposes. You can find such trees lining the streets in small European towns or depicted in some of Van Gogh's greatest landscape paintings. Jean English propagated our stock at Bayberry Gardens in Lincolnville, ME. She got the cuttings from a friend in Maine who actually heats his small office with pollarded branches from these trees! Native to Europe and naturalized in eastern U.S. Z4. **ME Grown.** (1-3')

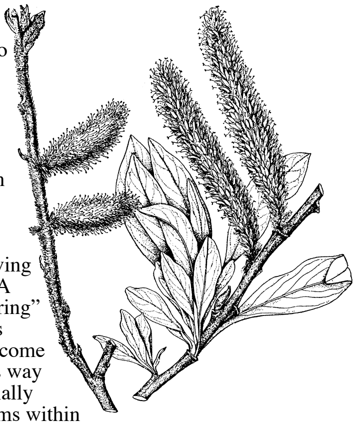
367A Dutch Timber Willow, $11.00



***S. a.* 'Tristis' Niobe Weeping Willow** 50x50' The classic weeping willow, a very large majestic graceful wide-spreading tree. Golden drooping branches, which can hang to the ground, are used for basket weaving; golden bark and leaves used medicinally. Harvest twiggy branches in early spring to make a tincture. Buzzes with life when May flowers attract loads of pollinating bees. Native to southern Europe and western Asia. Z4. (3-6')

368A Tristis Niobe Weeping Willow, $11.00





***S. chaenomeloides* Japanese Pussy Willow** 12-20' x same. Also called **Giant Pussy Willow**. Late winter cuttings of barely opened catkins evoke the quiet clean aesthetics of Japanese decor: a hint of silver peeking through dark red bud scales. Or, wait to harvest when fully open 1–3" long showy male catkins are grey with a dusting of pink. Later still, yellow-orange anthers cover the mature catkins giving a rich creamy hue from a distance. A lovely tree in every stage of "flowering" and one of the first signs of spring's arrival. Leaves open reddish and become yellow-green and the glamor makes way for an excellent hedge shrub, especially when pruned to keep the showy stems within easy reach for cutting. Naturally thrives on riverbanks and sand bars but soil adaptable. Full sun to partial shade. Native to Asia. Z4/5. **ME Grown.** (2-4')

369A Japanese Pussy Willow, $11.00

***S. gracilistyla* 'Melanostachys' Black Pussy Willow** 6-10' x same. Very attractive fast-growing plant for wetland areas. Large purple-black male catkins in early spring, cut branches are marvelous for the dining table or kitchen windowsill. The rather short foliage emerges orange and then turns a deep green. Stems assume a rich purple-black color in winter. Attractive dark colors all year. Featured in the April 2011 *Down East* magazine article on willows. Winner of Royal Horticulture Society Award of Garden Merit. Prune in summer or fall. Does not like shallow chalky soils. Native to eastern Asia. Z4. (2-4')

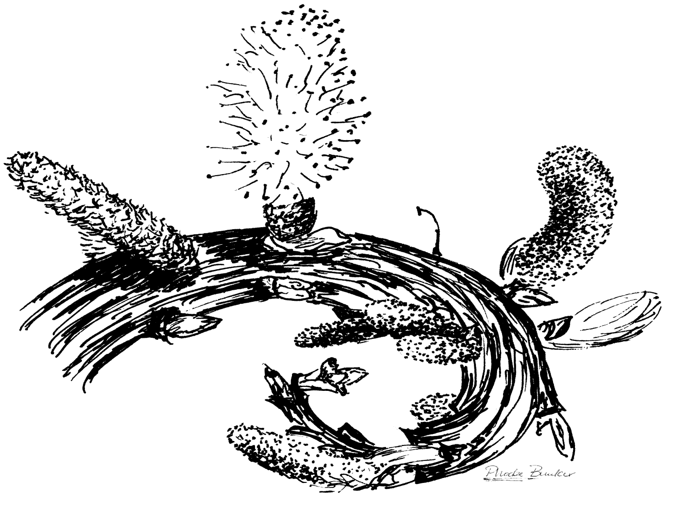
370A Black Pussy Willow, $11.00

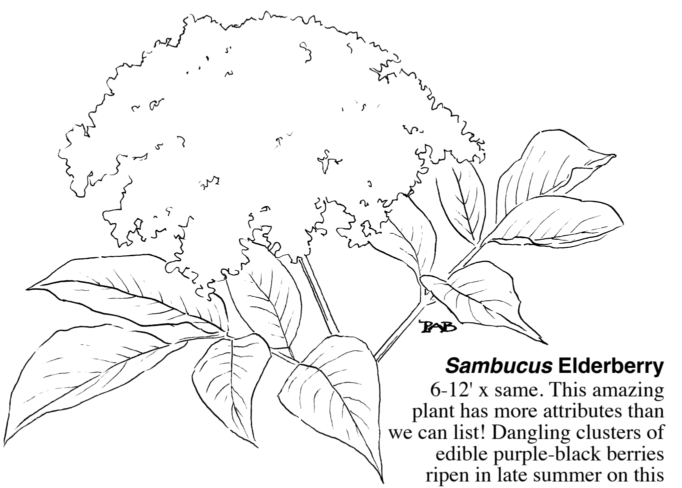
***S. purpurea* 'Nana' Blue Leaf Arctic Willow** 3-5' x 3-6' Selection of Purple Osier willow. Medium-sized spreading shrub with small narrow blue foliage (actually greenish above and blue beneath) and delicate thin long red or green stems. This is the "angel hair" of willows. The graceful thin stems sucker, layer and form a thick and highly attractive ornamental mass. Long cultivated and used for fine-textured basket-making. Excellent bank or hedge plant, especially in wet areas but also quite suitable for a highly visible location. We've seen it used in a perennial bed; it looked great. If it gets too overgrown, cut it to the ground every couple of years and it'll come right back. Native Europe to North Africa to Japan. Z3. (1-3')

371A Nana Blue Leaf Arctic Willow, $11.00

***S. sachalinensis* 'Sekka' Japanese Fantail Willow** 10-15' x same or wider. Sometimes called *S. udensis* 'Sekka'. Male clone, Japan, before 1700. Fantastic wide dense spreading disheveled shrub with highly ornamental curled and flattened branches. Not wiggly or loopy like the contorted willows or Harry Lauder's Walking Stick. Rather, these branches are flattened and bundled (fasciated) and often curled like the neck of a violin near the branch tip. We cut the reddish-golden surreal branches in winter for arrangements: the dried stems look great on the table for years. Covered with yellow catkins in spring. Recommended for an impenetrable hedge or low windbreak. If it gets out of hand, trim it up or cut it back any time of year. Glossy green summer foliage turns yellow in the fall. Highly adaptable, you can grow it anywhere. Ours like it wet, but there is a massive hedge in Unity at MOFGA's Common Ground on dry soil. Native to Japan. Z4. **ME Grown.** (1-3')

372A Sekka Japanese Fantail Willow, $11.00





***Sambucus* Elderberry**

6-12' x same. This amazing plant has more attributes than we can list! Dangling clusters of edible purple-black berries ripen in late summer on this broad vigorous multi-stemmed shrub. The fruit is highly nutritious and medicinal. A century ago, everyone's grandmother knew how to make the perfect elderberry pie. Recipes for jam could be found in all the old farm cookbooks. Elderberries are making a big comeback as folks rediscover the scrumptiousness of elderberry jelly, cordial, elixir and wine. The large creamy-white flower clusters, or cymes, that cover the shrub in early summer make delicious fritters. Dry them for a fragrant wintertime cold-and-flu remedy tea. For centuries, humans have used this plant's medicinal qualities to treat a wide range of aliments and to boost the immune system. Hippocrates is said to have called the elder tree his "medicine chest." Birds love the fruit, and the blossoms attract beneficial insects and pollinators. Elderberry trees appear in myths from days of yore, thought to possess magical and protective powers. Very disease-resistant, no major insect problems. Elderberries are low-maintenance and easy-to-grow. With a little attention, they will provide strong yields of fruit for several decades. Considered self-fertile but multiple plants will improve fruit set—okay to mix species. Z3. All are **ME Grown**. (1-3')

***S. canadensis* 'Adams No. 1'** NY State Ag Experiment Station intro, 1926. Selected in 1915 from the wild by William Adams in Union Springs, NY, and sent to Geneva where it was introduced 11 years later. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Excellent for preserving and not bad fresh eating. Very large vigorous strong productive bush. Though typically reaching 7–8', in one of our Maine nurseries, this variety was the mother of all elderberries, reaching 12' in height and the same across. It lived for many years as the centerpiece in the garden and provided a year's worth of berries every season. **ME Grown**.

373A Adams No. 1 Elderberry, $16.75

***S. c.* 'Mattawamkeag'** Fedco introduction, 2014. Selected and propagated by Sue Szwed and Mitch Lansky of Wytopitlock, ME. Sourced from a wide swath of plants growing between Wytopitlock and Bancroft in Aroostook County near the Mattawamkeag River. Cuttings were taken from plants that are robust with consistently high fruit yields. According to Sue, they don't appear to suffer from much winterkill, and she has found them to fruit dependably year after year. **ME Grown**.

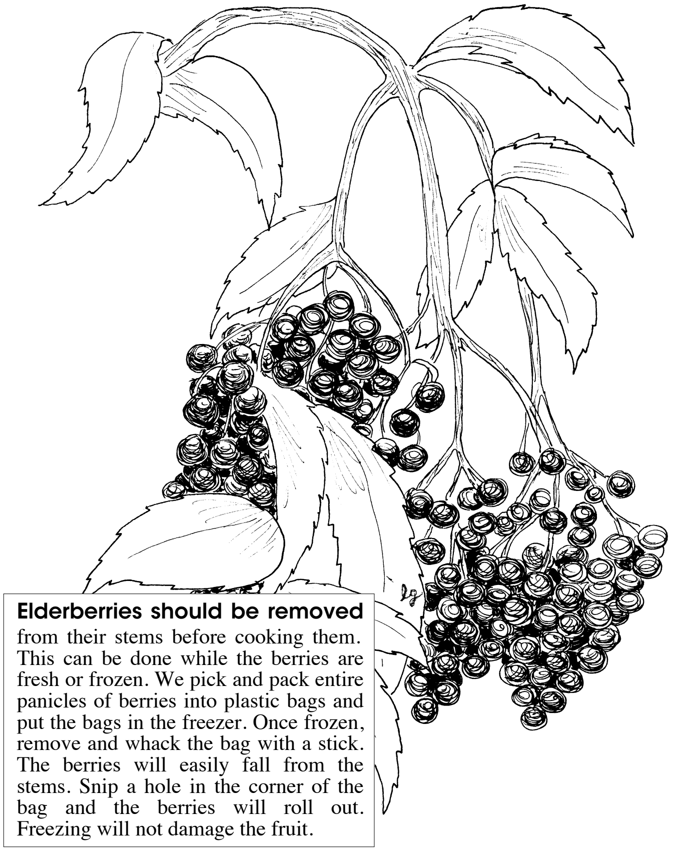
374A Mattawamkeag Elderberry, $16.75

***S. c.* 'Meadowview'** Fedco intro, 2014. Selected and propagated by Polly Shyka and Prentice Grassi of Village Farm in Freedom, ME. Selected from a patch of wild seedlings growing next to an old timber-framed barn in Orrington, Maine. The shrubs average 5' in height and fruit heavily. Deb Soule of Avena Botanicals has harvested from this patch for the last 15 years. It has seen some cold winters and is still going strong. **ME Grown**.

375A Meadowview Elderberry, $16.75

***S. c.* 'York'** (Ezyoff x Adams No. 2) NY Ag Exp Station, 1964. An old reliable, considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4–5', but we've seen a 10' specimen growing on a compost pile! Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams are easy to pick and excellent for jam, jelly, wine and pie. Bright green foliage on a rounded shrub. **ME Grown**. (1-3')

376A York Elderberry, $16.75



Elderberries should be removed from their stems before cooking them. This can be done while the berries are fresh or frozen. We pick and pack entire panicles of berries into plastic bags and put the bags in the freezer. Once frozen, remove and whack the bag with a stick. The berries will easily fall from the stems. Snip a hole in the corner of the bag and the berries will roll out. Freezing will not damage the fruit.

***S. c.* Elderberry Seedlings** Each one is grown from cold-hardy seed and will be a totally unique plant. Some of our best plants grew from batches of such seedlings. Jen has one from Michigan that outgrew all of her other elders and provided huge amounts of berries in its second year. It's fun to mix it up and see what you get! **ME Grown.** (1-3')

377A Elderberry Seedlings, $16.50

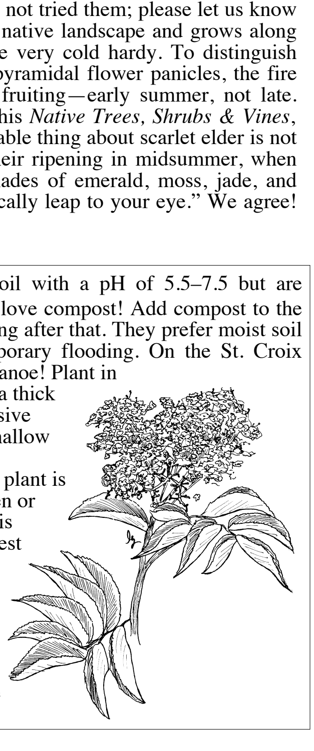
377B Elderberry Seedlings, bundle of 5 for $70.00

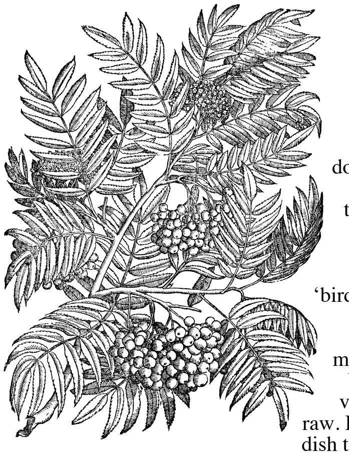
***S. pubens* Scarlet Elder** 12-20' x same, though often smaller when partially shaded. Sometimes called **June-Bearing Elder** or **Red-Berried Elder**. Ornamental elderberry; some sources say that if berries are cooked they are good for jelly and wine. We have not tried them; please let us know your experiences. Commonly seen in the native landscape and grows along logging roads in northern Maine. They're very cold hardy. To distinguish them from other elderberries, note their pyramidal flower panicles, the fire engine–red berry color and the time of fruiting—early summer, not late. Great early forage for bees and birds. In his *Native Trees, Shrubs & Vines*, William Cullina states, "The most remarkable thing about scarlet elder is not just the brilliant color of the fruits but their ripening in midsummer, when green dominates the landscape. Amid shades of emerald, moss, jade, and olive, the clusters of scarlet berries practically leap to your eye." We agree! Native to the U.S. **ME Grown.** (1-3')

378A Scarlet Elder, $16.75

Elderberries are best grown in rich soil with a pH of 5.5–7.5 but are adaptable to a variety of soil types. They love compost! Add compost to the hole at the time of planting and every spring after that. They prefer moist soil but will tolerate poor drainage and temporary flooding. On the St. Croix River, Jen harvests elderberries from the canoe! Plant in full sun. Control weeds by mulching with a thick layer of hay, leaves or woodchips. Aggressive weeding around elders will disturb their shallow roots and risk injury to the plant.

Pruning: *S. canadensis*: in spring, while plant is still dormant, prune away any weak, broken or dead canes. New canes will emerge. Fruit is produced on both new and old wood but best sets are on one- and two-year canes. Periodically cut out the oldest wood. Alternately, some people prefer to cut elders back to the ground each year and treat them as perennials. The latter plants will produce fewer but larger fruit clusters. *S. pubens*: Do nothing, or remove dead canes as needed.



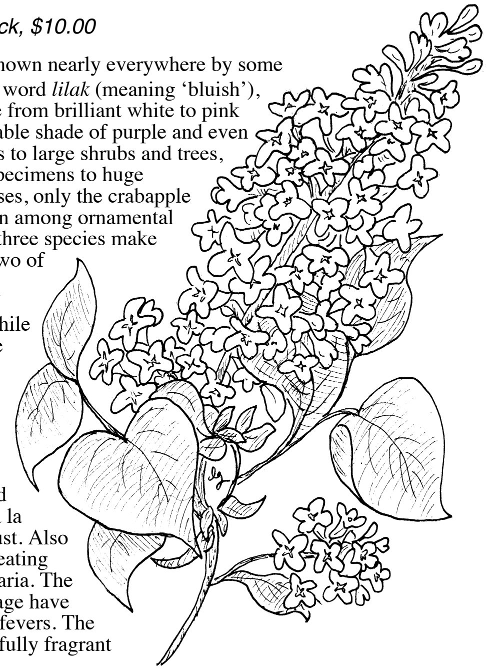


***Sorbus aucuparia* European Mountain Ash** 20-40 x 10' Also called **Rowan**. You might have encountered the rowan tree in Celtic mythology, thought to ward off evil and used as the wood of druid staffs, dowsing rods and magic wands! Small single- or multi-stemmed landscape tree with smooth bark displays bright orange-red clusters of pendulous berries in late summer. *Aucuparia* is derived from Latin meaning 'bird-catcher.' As the name suggests, the fruit attracts a wide variety of birds including waxwings and robins. The medicinal and vitamin-rich berries can be stewed or processed in jam, juice, vinegar, tea or liqueur; don't eat them raw. In Europe, the jam is served as a side dish to venison. Bees love the flowers and finches eat the seeds. Serrated compound leaves are ornamental and resemble those of an ash tree. Prefers full sun in moist well-drained acid soils and cool climes. Does not fare well in zones warmer than 6 but thrives in cooler parts of North America where it has become naturalized and hybridized with others of its genus. Native Europe to Siberia. Z3. **ME Grown**. (1-3')

379A European Mountain Ash, $14.00

***Spiraea douglasii* Hardhack** 3-7' x same. One of our beautiful native spirea species. Resembles our common meadowsweet in form but the flowers are far more striking. Bright pink fuzzy-looking 2–3" densely flowered pointed spires stand on top of 2–3' upright stems and provide food for a number of different pollinators. The flower is thicker and denser than our native eastern spiraea, but very similar in color. Foliage is smooth and light green with silvery undersides. In the western U.S. it can be found growing along ponds, streams and swamps, usually in colonies. Grows best in damp or wet areas, sun or partial sun. Native to western U.S. Z4. **ME Grown.** (1-3')

380A Hardhack, $10.00



Syringa Lilac

is known nearly everywhere by some variation of the Persian word *lilak* (meaning 'bluish'), but lilacs actually range from brilliant white to pink to red to every conceivable shade of purple and even blue. From small shrubs to large shrubs and trees, compact vase-shaped specimens to huge rounded spreading masses, only the crabapple offers a greater selection among ornamental woody plants. Twenty-three species make up the genus *Syringa*, two of which are native to the limestone mountains of southeastern Europe, while the rest are native to the temperate Far East. Although primarily known as ornamental, the lilac is also edible and medicinal and can even be used as a dye plant. Some recommend the flowers for fritters à la elderberry or black locust. Also traditionally used for treating kidney disease and malaria. The bark, branches and foliage have been used for reducing fevers. The flowers make a wonderfully fragrant wine.

In the landscape, lilacs are excellent alone or in hedges. Deep green glossy heart-shaped foliage looks good from spring through fall. Intensely fragrant blooms in May over a period of several weeks.

As with roses and crabapples, we vary our list each year to give you a wide selection. If you have suggestions for cultivars you'd like us to offer in the future, please let us know. All of our lilacs are **ME Grown** by Jamie Greager of Fat and Aged Farm in Palermo. (2-yr well-rooted transplants)

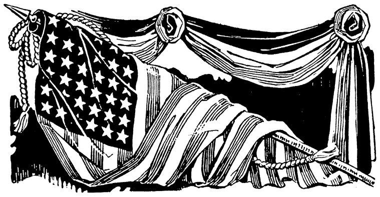
***S. chinensis* 'Lilac Sunday'** 10x12' Seed from Beijing Botanic Garden, Arnold Arboretum intro, 1997. Flowers are delicately fragrant, single and pale purple. In the sun the upper surfaces of the panicles have a dazzling white frosted quality. Flowers also bloom all along the sides and tips of each branch, creating an amazing plume-like effect. It's a shrub covered with flowers. Lilac Sunday is the huge annual May celebration of lilacs at the Arnold Arboretum in Boston. It's a lot of lilacs, a lot of people and a lot of fun. Go. We've been excited about this lilac since the day we first saw it at…Lilac Sunday! Z3. **ME Grown.**

381A Lilac Sunday, $13.50

***S. x hyacinthiflora* 'Anabel'** 6x9' Hawkins, 1948. Sometimes spelled 'Annabel'. One of the earliest lilacs of the season with very fragrant old-fashioned soft pink double inflorescences. Somewhat compact variety introduced by Iowa farmer Roy Hawkins (1886-1972) and named after his wife. Z3. **ME Grown.**

382A Anabel, $13.50

***S. x h.* 'Old Glory'** 10x15' (*S.* 'Sweet Charity' x *S. h.* 'Pocahontas') National Arboretum, 2006. Abundant single bluish-purple inflorescences in early spring. This recently released variety was the result of a controlled hybridization of two known varieties by propagator Don Egolf in 1978. The result is a lilac with a rounded form and leaves that have excellent resistance to diseases that are common in warmer climates. Z5. **ME Grown.**



383A Old Glory, $13.50

***S. vulgaris* 'Adelaide Dunbar'** 12x10' Selection by John Dunbar, Rochester, NY, 1916. Fragrant deep-purple double florets on dark stems in mid-spring. Named after the wife of horticulturalist John Dunbar (1859-1927). Dunbar's extensive lilac plantings in Rochester became well known in the botanical world. The city's Highland Park Botanical Gardens continues to host a long-standing Lilac Festival. This variety was selected from a group of about 75 open-pollinated seedlings that sprang up from Dunbar's original collection of French hybrid and Lemoine cultivars. Z3. **ME Grown.**

384A Adelaide Dunbar, $13.50

***S. v.* 'Bridal Memories'** 6-8' x same. Max Peterson intro, 1993. Clean, bridal-dress white flowers are single and cupped. Rounded semi-compact form. Peterson is a wheat farmer in Nebraska with an impressive collection of lilacs—over 1000 bushes on 14 acres, perhaps the largest private collection in the world. As an amateur horticulturist, Peterson has introduced 20 new cultivars to the International Lilac Register! Growing at the Arnold Arboretum; you can visit it on Lilac Sunday. Z3. **ME Grown.**

385A Bridal Memories, $13.50

***S. v.* Common Purple** 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years. When a nursery friend looked out John's living room window and thought he had some fancy new cultivar, he chuckled, "Nope, just the good old common purple." Never a disappointment. Suckers freely, the best lilac for a spreading hedge. Z2. **ME Grown**.

386A Common Purple Lilac, $13.50

***S. v.* 'Congo'** 6-8' x same. Lemoine intro, 1896. Buds start burgundy, open to single heavily scented purple florets and fade to smoky magenta. A wonderful old heirloom variety. Victor Lemoine of Nancy, France, and his family made a huge impact in the world of lilacs. They were the first people to hybridize lilacs on a wide scale, breeding the first of the large-flowered double lilacs and *hyacinthflora* species. Z3. **ME Grown.**

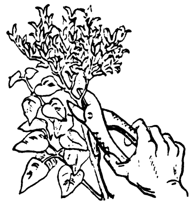
387A Congo, $13.50

***S. v.* 'Red Pixie'** 4 x 6' Max Peterson intro, 1987. Compact dwarf shrub. Reddish-pink single blooms open bright and fade to soft pink. Chance seedling found in Nebraska growing among Peterson's extensive lilac collection, and thought to be an offspring of 'Hers' lilac. The original dates back to 1954, tops out at 7' and is still going strong. Z3. **ME Grown.**

388A Red Pixie, $13.50

Lilacs are adaptable, easy to grow, nearly indestructible and practically maintenance-free. Plant them in a well-drained location in moderately rich soil. Sandy gravelly loam is perfect. They prefer sun at least two-thirds of the day. We suggest planting them with a shovelful of lime. Add another shovelful of lime every three years. A yearly mulch of manure or compost will encourage spectacular annual blooming.

How to prune lilacs



As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year). Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others perfer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process. Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance.

Why isn't my lilac blooming?

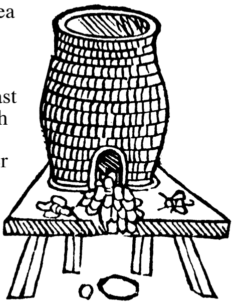
Too shady: lilacs need sun to form blossoms. Over-pruned: late-season pruning removes next year's buds. Also, some plants respond to excessive pruning by putting their energy into vegetative growth instead of flowering. Too wet: lilacs like well-drained soil. Over-fertilized: lilacs will bloom well without assistance. Too much fertility can lead more vegetative growth and inhibit bud formation.

***Thuja occidentalis* Arborvitae** 20-60' Arborvitae means 'tree of life.' Also called **Eastern White Cedar**. Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Foliage and bark tea high in vitamin C. Foliage tea helpful in infections, twig decoction makes an anti-viral antifungal skin wash. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Thrives in rich moist marshy neutral-to-alkaline soils. Good for screens and hedges. Probably the first North American tree brought to Europe. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition amongst natives caretaking the forests of Maine. Grown in Maine. Z2. (1-3')

389A Arborvitae, bundle of 3 for $18.00

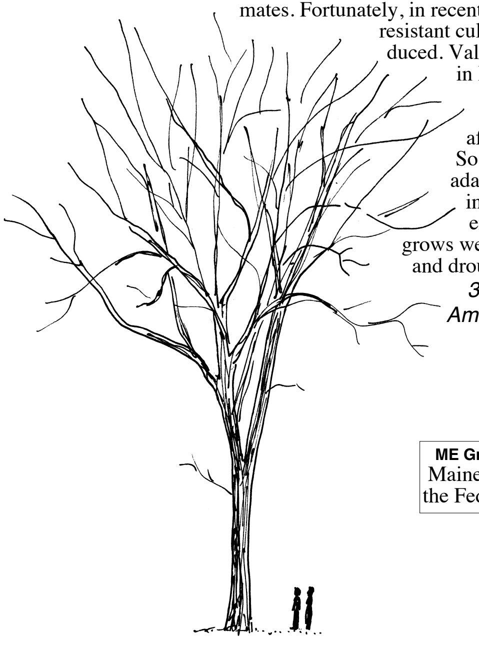
***Tilia americana* American Linden** 60-80' x same. Also known as **Basswood** and **Butterwood**. Tall stately tree with rounded crown and numerous low-hung spreading branches. Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, are reputed to make the best honey, and also make a popular after-dinner tea and stomach remedy. The young half-size foliage makes a high-quality salad green. Butterwood: excellent soft carving wood with "no grain." Basswood: may be a corruption of "bastwood." Bast is cordage or textile fiber, and the inner bark, tough and fibrous, can be used for ropes and nets. Woodworkers love to use a small piece of the inner bark as a glue brush. Yellow fall color. Prefers deep rich moist soils with a pH slightly alkaline. Full sun or partial shade. Sensitive to salt and pollution. May live for 900 years. Native from New Brunswick to VA. Z3. **ME Grown.** (2-4')

390A American Linden, $14.00

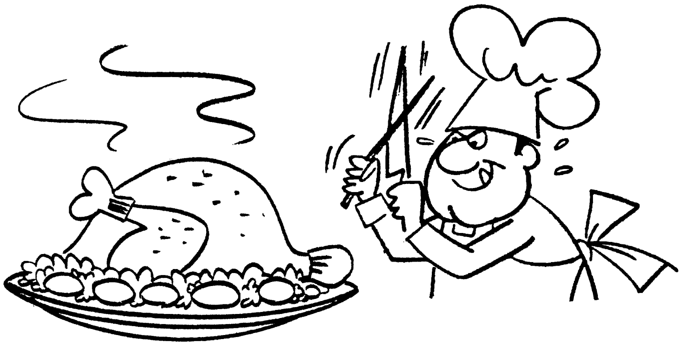


***Ulmus americana* 'Valley Forge' American Elm** 60x70' US National Arboretum introduction, 1995. Large fast-growing graceful native once lined virtually every street in New England but declined dramatically due to Dutch elm disease. At maturity the trunk can reach 4' in diameter with a immense vase-shaped canopy. Long loose branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates. Fortunately, in recent years several disease-resistant cultivars have been introduced. Valley Forge was selected in Delaware, OH, by AM Townsend and LR Schreiber and released after 20 years of testing. So, plant more elms! Soil adaptable, prefers to grow in moist areas along rivers and streams but also grows well in drier places. Salt- and drought-tolerant. Z4.(3-6')

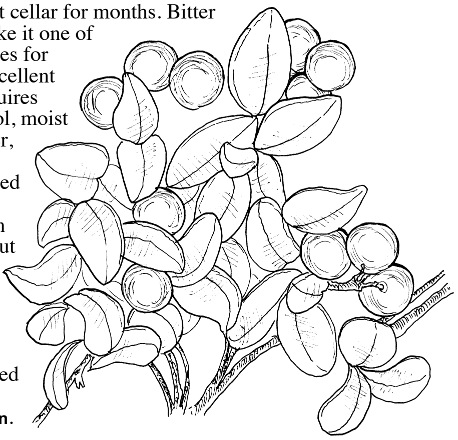
391A Valley Forge American Elm, $24.00



ME Grown = grown in Maine by a member of the Fedco growers coop

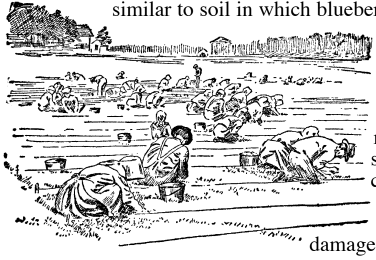


***Vaccinium macrocarpon* 'Stevens' American Cranberry** This is the cranberry of holiday sauces, bread and jelly. Dense low lustrous evergreen ground cover, reddish purple in fall and loaded with large red berries. Once established, makes a beautiful and edible "lawn." Handpick or rake like blueberries before hard frost. Use fresh, freeze or store in a cool basement or root cellar for months. Bitter and alkalizing effects make it one of the most common remedies for bladder infections. An excellent source of vitamin C. Requires acidic soil, preferably cool, moist and high in organic matter, though will grow in dry locations. Annually flooded for frost protection and harvesting convenience in commercial operations, but not necessary in home plots. Self-fertile. Native to northeastern U.S. and Canada. Comes in a 6" clump which can be carefully divided or planted as a whole for division in future years. Z2. **ME Grown**. (sod clump)



392A American Cranberry, $18.00

American Cranberries are shallow-rooted and require light acid soil (pH 4.0–5.5), preferably cool, moist and high in organic matter, similar to soil in which blueberries grow well. Will grow in dry locations. Plant them in spring once the ground can be worked in a bed or in a naturalized setting.



We no longer recommend mixing in sulfur to acidify the soil. Sulfur is slow-acting and can be added to soil surface in subsequent years if necessary. Mixing it into the soil can damage tender young roots.

Instructions for a 5x5′ bed (10 plants or divisions):

For acidic "blueberry" soils: If you're fortunate to have a site where blueberries grow naturally, clear a spot of vegetation, cultivate the soil, add some peat and sand if you like, and you're ready to plant.

Sandy soils: Remove soil 10" deep and mix soil with 2 bales of damp peat moss. Replace mixture in bed and cover with 2" of sand.

Clay or silty soils: Remove soil 10" deep and place it around the edge of the bed as a berm. Replace the soil with a 50-50 mix of soil and peat (about 2 bales of peat). Cover with an additional 2" of sand. Plant cranberries 12" apart, so the roots are in the peat and the sand is covering the lower portion of the stems.

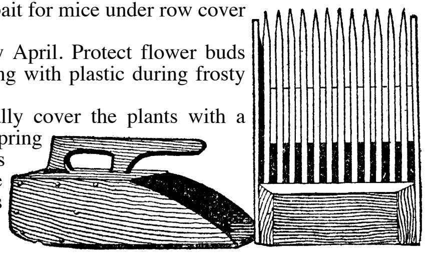
Remove all weeds as needed. Water the plants weekly so that the peat is moist but not saturated. Add nitrogen at a rate of $^{1}/_{3}$–1 lb (or 20–50 lbs of manure) per 100 sq feet each year. No pesticides should be necessary.

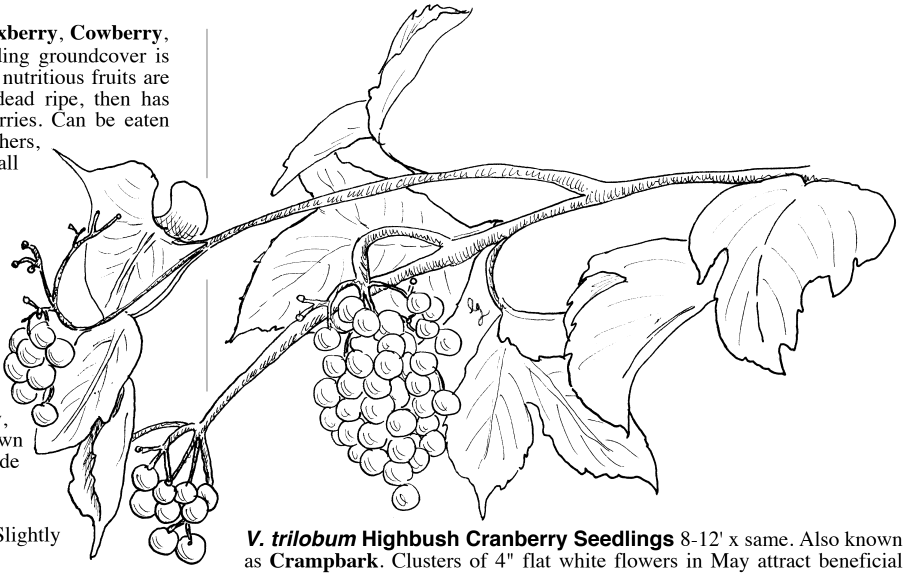
Handpick before first hard frost when berries are red.

In late fall, cover the bed to protect the plants from the drying effect of winter winds. Use a mulch of leaves or pine needles; or cover with polyester row cover and then clear plastic; or cover with row cover and then plenty of leaves. You may want to bait for mice under row cover or plastic.

Remove mulch in early April. Protect flower buds from 28° frosts by covering with plastic during frosty nights.

Every two years partially cover the plants with a $^{1}/_{2}$–1" layer of sand in spring before growth begins. This will help produce more berries and keep weeds down.





Vaccinium vitis-idaea **Lingonberry** Also called **Foxberry**, **Cowberry**, **Mountain Cranberry**. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are slightly smaller than lowbush blueberries. Tart until dead ripe, then has excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Stores up to 2 months in the fridge. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. If you've got good soil for blueberries, try these. Ripens in late summer but is best after a frost. Harvest by hand or with a blueberry rake. Will produce 1–2 lbs per plant depending on the variety and can produce for up to 20 years. Prefers full sun and poor sandy acid (pH 4.5–5) soils. Plant 12–18" apart in rows 3–4' apart. Incredibly tough and very hardy. To ensure good fruit production, plant more than one variety. Native to the colder northern hemisphere. Finally, we have a local supply of bushy two-year transplants grown in Newport, ME, by Carol Armatis. Z2. **ME Grown.** (4" wide multi-stemmed transplants)

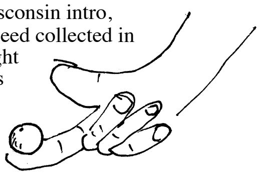
V. v.-i. **'Erntesegen'** 12-15" Originated in Germany. High-yielding upright plant produces very large berries. Slightly acid sweet fruit. **ME Grown.**

L393A Erntestegen Lingonberry, $14.00

V. v.-i. **'Red Pearl'** 12-18" Elden Stang intro, Holland, 1983. Very adaptable fast-growing upright high-yielding plant produces large berries. Standard in commercial production as an excellent pollinator. **ME Grown.**

L394A Red Pearl Lingonberry, $14.00

V. v.-i. **'Regal'** 8-15" WI-108, Univ of Wisconsin intro, Madison, WI, 1994. From open-pollinated seed collected in southwest Finland. Highly ornamental upright plant produces firm small to medium berries with good flavor. Vigorous and easily transplanted. **ME Grown.**



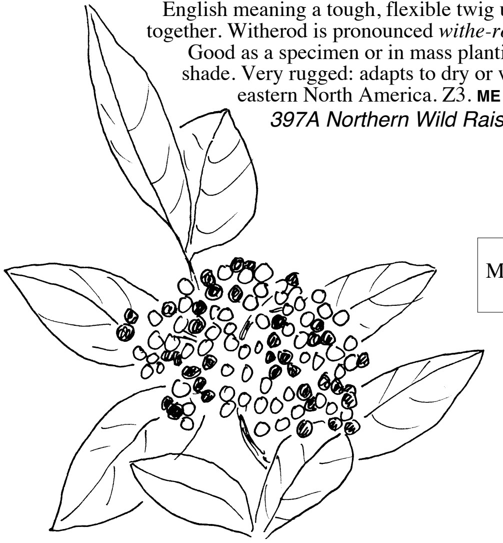
L395A Regal Lingonberry, $14.00

V. v.-i. **'Sussi'** 4-8" tall and spreading. Sometimes spelled 'Susi'. Patented by the Swedish Agricultural Department, 1985. Vigorous bush with moderate yields of medium berries that fruit on branch tips. Great pollinator for other varieties. **ME Grown.**

L396A Susi Lingonberry, $14.00

Viburnum cassinoides **Northern Wild Raisin** 5-6' x same. Also called **Appalachian Tea**, **Raisinberry** or **Witherod**. Rounded arching dense suckering native shrub. Creamy-white flowers with yellow stamens on 2–5" flat-topped cymes bloom from spring to early summer. Highly desired for its multicolored edible fruit, which turns from green to pink to red to blue before finally turning black in September. One fruiting cluster may feature several colors at the same time. Best eaten when nearly dried out on the branch, if you can get to it before the birds! Foliage, once used in tea, emerges bronze or purple tinted, turning dark green when mature and then orange-red, dark crimson and purple in fall. *Withe* is from the old English meaning a tough, flexible twig used to bind things together. Witherod is pronounced *withe-rod*, not *wither-rod*. Good as a specimen or in mass plantings. Sun to partial shade. Very rugged: adapts to dry or wet sites. Native to eastern North America. Z3. **ME Grown.** (1-3')

397A Northern Wild Raisin, $13.00



ME Grown = grown in Maine by a member of the Fedco growers coop

V. trilobum **Highbush Cranberry Seedlings** 8-12' x same. Also known as **Crampbark**. Clusters of 4" flat white flowers in May attract beneficial insects to this medicinal multi-stemmed native shrub. Quite lovely in bloom. Pendulous bunches of red berries ripen mid-October, popular with dozens of bird species. Fruit is extremely rich in antioxidants and vitamins A and C. Although considered a wildlife plant, berries can be used for juice, jam, fruit leather and syrups. Bark is one of the most effective anti-spasmodic native medicinals. Harvest bark in April or early May before leaves emerge by running a sharp knife down the long younger stems. Make tea or tincture to relieve cramping and muscle tension of various sorts. Tolerates dry soils that are high in organic matter, but prefers rich moist well-drained soils, sun or shade. Good for screens and hedges. Soil pH 6–7. Susceptible to viburnum leaf beetle though much less of a problem than in past years. Not a bog cranberry. Considered self-fertile, but plant multiple for best fruit production. Native to northeast U.S. and Canada. Z2. **ME Grown.** (1-3')

398A Highbush Cranberry Seedlings, $15.00

398B Highbush Cranberry Seedlings, bundle of 5 for $62.00

Weigela florida **'Dark Horse'** 2-3' x same. Dark purple-bronze foliage and small size make this cultivar fun and unique amongst the weigelas. Funnel-shaped magenta flowers contrast beautifully against bright green venation (veins) patterned on the dark leaves. A great pollinator flower for bees, butterflies and hummingbirds in late spring to early summer. Best to prune it right after blooming. Adaptable but prefers well-drained soil. Genus native to eastern Asia. Z3/4. (1-3')

399A Dark Horse Weigela, $12.00

Tender Summer Bulbs Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. Once upon a time, back roads beckoned my mother to spend many a summer Sunday in search of the best deal on roadside dahlias, glads and lilies. Every few miles she would find buckets brimmed with blooms for 10¢ a stem. Nowadays it's more like $1. Spring-planted bulbs are not hardy to northern climes. Smart and thrifty people lift and store them over the winter (details below); the rest of us treat them as annuals.

***Acidanthera callianthus murielae* Fragrant Gladiolus** Sword-like foliage is topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Beautiful in the garden or as a cutflower. 24" tall. Culture like gladiolus.

***L601A**: 10 for $3.50*
***L601B**: 20 for $5.50*
***L601C**: 50 for $12.00*

***Anemone coronaria* De Caen mix Anemone** or **Windflower** Charming single flowers 1–3" wide are dark purple-blue, red, rose or white and appear in early summer. Good for borders, containers and cutting. Keep moist during the growing season. Soak the knobby tubers in water 24 hours before early spring planting. Plant in full sun, 1–2" deep, 4–8" apart in light sandy soil. 8–10" tall.

***L602A**: 10 for $4.25*
***L602B**: 20 for $7.25*
***L602C**: 50 for $15.50*

***Begonia* x *tuberhybrida* Tuberous Begonia** If you live in the woods with limited sunlight and are longing for colorful flowers, tuberous begonias offer lush textures, intense colors and a tropical aura that make this tender plant well worth cultivating. Velvety flowers bloom all summer, drooping languidly amidst red-tinted foliage. Excellent bedding or container plants. For outdoor plantings, once the danger of frost has passed, plant in rich *moist but not soggy well-drained soil*. Place the knobby concave side facing upwards, rounded side down, 2" deep, 8–12" apart. For window boxes, plant 3–5" apart. Best in a cool spot with indirect sunlight and good air circulation. I drench mine with water every other day, feed them weekly and stand back to ooh and ah! All are Camellia Multiflora types. $2\frac{1}{2}$" tubers.

Orange Double flowers. 12" tall.

***L603A**: 2 for $7.00*
***L603B**: 4 for $12.50*
***L603C**: 6 for $17.00*

Dark Red Double flowers. 12" tall.

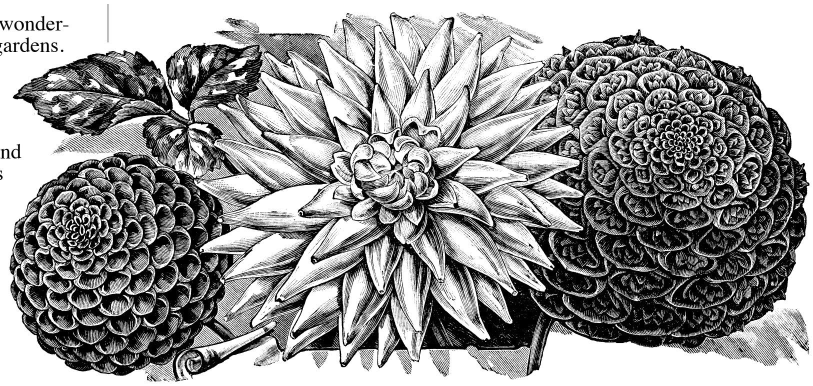
***L604A**: 2 for $7.00*
***L604B**: 4 for $12.50*
***L604C**: 6 for $17.00*

Yellow and Red Picotee Double flowers are like a yellow-orange blazing sunset with fine red margins. 4–9" tall.

***L605A**: 2 for $7.00*
***L605B**: 4 for $12.50*
***L605C**: 6 for $17.00*

***Crocosmia* x *crocosmiiflora* 'Lucifer'** glows in the garden! Makes a long-lasting cutflower. Midsummer sprays of bright red flowers open from bottom to top on long arching flower stalks, like bursts of flame above gladiolus-like foliage. *Lucifer* means 'light-bearing' in Latin and refers to the blossoms' resemblance to lighted matches. Grows well in pots. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. 24–36" tall.

***L606A**: 10 for $4.00*
***L606B**: 20 for $7.50*
***L606C**: 50 for $15.00*



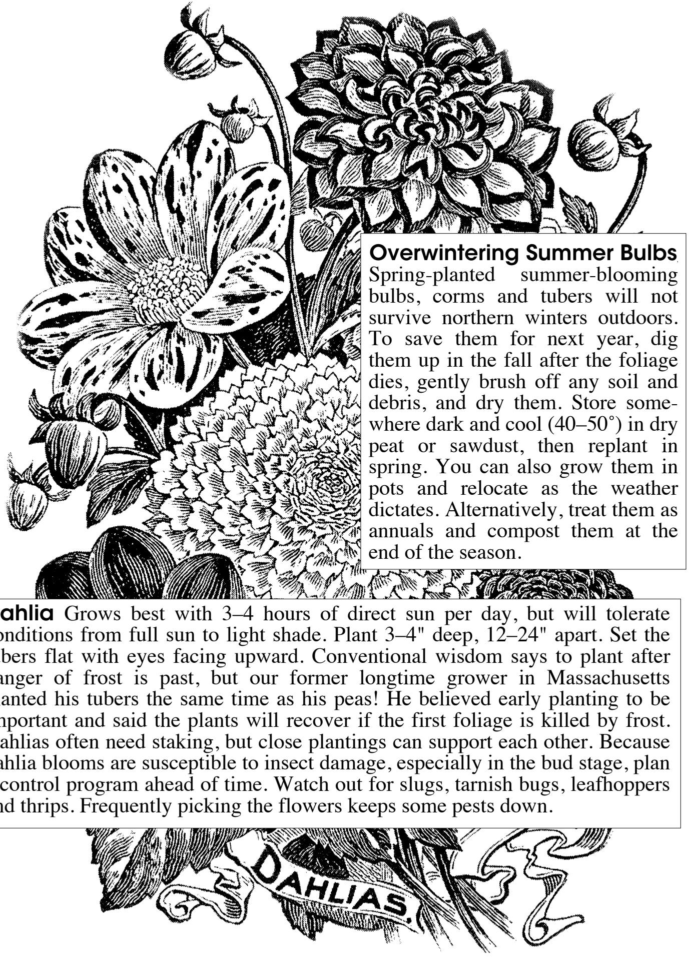
Dahlia provides endless displays of gorgeous blossoms in a vast array of sizes, shapes and colors, steadily blooming from midsummer till frost—adding incredible late-season value to the cutting garden. Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and hybridizing *D. pinnata* and *D. juarezi*. Planting instructions below.

***D.* 'Martin' Dinnerplate** Unique triple-toned blossoms span 7" across with dazzling brindled brushstrokes of red upon hazy pink and white. This is a tough one to describe, but you could take a gander at the picture on our website. This year's stock is brought to you by the hardworking Brett and Jennifer Irving of Chain Meadow Farm in Troy—whose fabulous field of dahlias glows with glorious color. 3–4' tall. **ME Grown.**

***L607A**: 1 for $6.00*
***L607B**: 3 for $15.25*
***L607C**: 6 for $25.00*

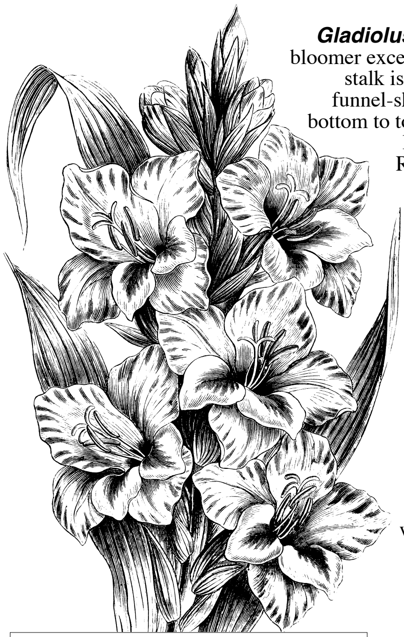
***D.* Sultry Summer Sunset Mix** Colors range from amber to coral, rose to ruby, to a warm rich magenta-purple. A grand combination of solids, and bicolors, cactus, semi-cactus, decoratives and dinnerplates. 36–44" tall.

***L608A**: 2 for $10.00*
***L608B**: 4 for $17.50*
***L608C**: 8 for $30.00*



Overwintering Summer Bulbs Spring-planted summer-blooming bulbs, corms and tubers will not survive northern winters outdoors. To save them for next year, dig them up in the fall after the foliage dies, gently brush off any soil and debris, and dry them. Store somewhere dark and cool (40–50°) in dry peat or sawdust, then replant in spring. You can also grow them in pots and relocate as the weather dictates. Alternatively, treat them as annuals and compost them at the end of the season.

Dahlia Grows best with 3–4 hours of direct sun per day, but will tolerate conditions from full sun to light shade. Plant 3–4" deep, 12–24" apart. Set the tubers flat with eyes facing upward. Conventional wisdom says to plant after danger of frost is past, but our former longtime grower in Massachusetts planted his tubers the same time as his peas! He believed early planting to be important and said the plants will recover if the first foliage is killed by frost. Dahlias often need staking, but close plantings can support each other. Because dahlia blooms are susceptible to insect damage, especially in the bud stage, plan a control program ahead of time. Watch out for slugs, tarnish bugs, leafhoppers and thrips. Frequently picking the flowers keeps some pests down.



***Gladiolus* Sword Lily** Showy summer bloomer excels as a cutflower. Each 36" tall stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for their sword-like leaves; a *gladiolus* was a small Roman sword. Gladiolus corms (bulbs) are $1^{1}/_{2}$" and up.

***G.* 'Carmello'** rich golden-yellow orange, very bright and showy.

***L609A**: 10 for $4.50*
***L609B**: 20 for $8.00*
***L609C**: 50 for $18.00*

***G.* 'Far West'** fire-engine red with prominent sunshine-yellow throat.

***L610A**: 10 for $4.50*
***L610B**: 20 for $8.00*
***L610C**: 50 for $18.00*

***G.* 'Fiorentina White'** white with a narrow red center stripe.

***L611A**: 10 for $4.50*
***L611B**: 20 for $8.00*
***L611C**: 50 for $18.00*

***G.* 'Green Star'** out-of-this-world luminous lime green!

***L612A**: 10 for $4.50*
***L612B**: 20 for $8.00*
***L612C**: 50 for $18.00*

***G.* 'Nori'** violet-blue with prominent cream-colored throat.

***L613A**: 10 for $4.50*
***L613B**: 20 for $8.00*
***L613C**: 50 for $18.00*

***G.* 'Plum Tart'** a dark purplish wine, very classy.

***L614A**: 10 for $4.50*
***L614B**: 20 for $8.00*
***L614C**: 50 for $18.00*

***G.* 'Raven'** dark red with a suggestion of black.

***L615A**: 10 for $4.50*
***L615B**: 20 for $8.00*
***L615C**: 50 for $18.00*

***G.* 'Wildcat'** light and lovely lavender with violet ruffled edges.

***L616A**: 10 for $4.50*
***L616B**: 20 for $8.00*
***L616C**: 50 for $18.00*

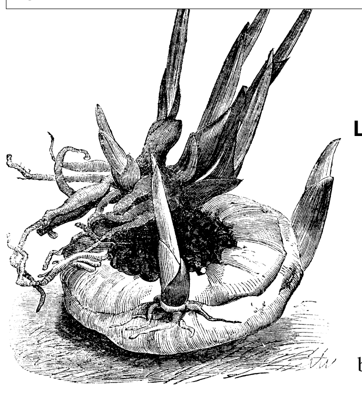
Large-Flowering Glad Mix

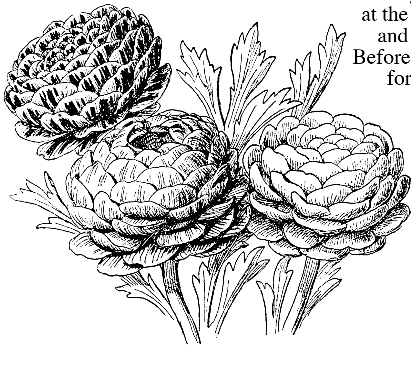
***L617A**: 10 for $4.00*
***L617B**: 20 for $7.50*
***L617C**: 50 for $15.50*

Gladiolus Each stalk blooms for about a week, about 8 weeks after planting. Stagger plantings for flowers from summer to frost. Cut when 2–3 flowers have opened, taking care to spare the leaves which feed the developing corm.

Plant corms 4–6" deep and 6" apart after the last spring frost. Hilling or staking may be needed if their sword-shaped foliage and 3–4' flower spikes get top heavy. Dig up the corms after the tops have died, discard the old one, clean the new one, dry, and store loose (no peat) in a cool dry place.

Thrips are a problem for glads, and infestations—indicated by yellowing and spotted foliage—are aggravated by water stress. Be prepared lest they harm your plants and prevent flowering. Consider a control program —possibilities include insecticidal soap, garlic, pyrethrum or rotenone—to use at the first sign of infestation.



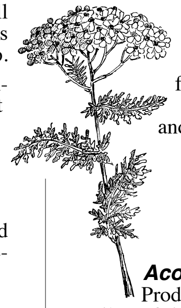


***Ranunculus* Hybrids Mix** Orange, white, yellow, pink or red flowers resemble giant double buttercups and bloom from late spring into summer. Good for borders, pots and cutting. Fern-like foliage. When Ranunculus appears at the florist in late winter, I go nuts and completely forget my budget! Before planting, soak tubers in water for several hours to several days. Plant in full sun, in moist well-drained soil. Set 2–4" deep, 6" apart, claw side down. 12" tall.

***L618A**: 6 for $3.75*
***L618B**: 12 for $6.75*
***L618C**: 24 for $12.00*

Herbaceous Perennial Plants

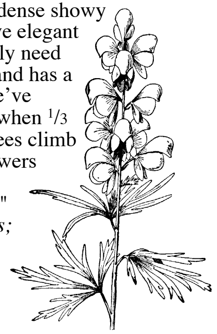
Most of the perennial plants we offer are hardy at least into Zone 4. USDA hardiness zone (chart on page 71) follows each description. The list is alphabetized by botanical name, in italics, followed by common name.



***Achillea millefolium* 'Strawberry Seduction' Yarrow** Blooms June through September featuring 2–3" strawberry-red flat-topped flower heads with bright yellow eyes. Dark green fern-like foliage is aromatic when crushed. Excellent for fresh and dried arrangements. We chose this cultivar for its compact sturdy and robust habit and its appeal to beneficial insects. Prompt removal of faded flower heads guarantees a long season of blooms. Plant crowns 12–24" apart in full sun to partial shade. 18–20" tall. Z3.

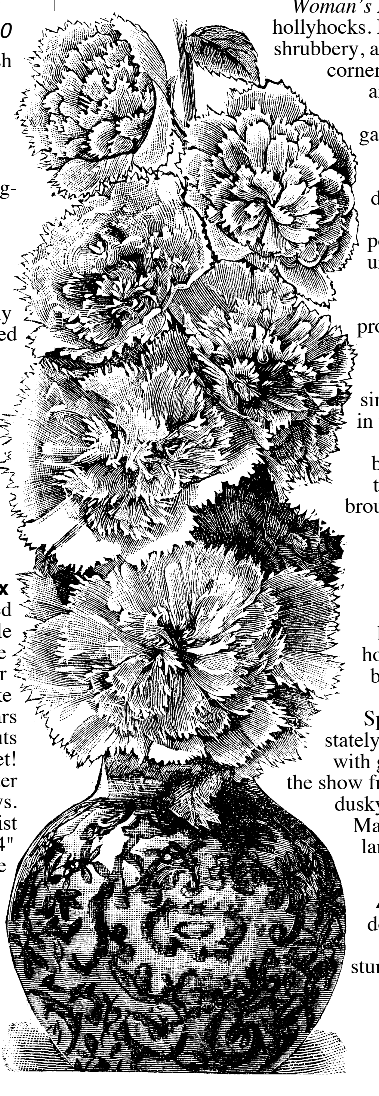
***L619A**: 1 for $5.75*
***L619B**: 3 for $15.75*
***L619C**: 6 for $28.00*

***Aconitum carmichaelii* 'Arendsii' Monkshood** or **Friar's Cap** Produces a mass of late summer blooms with dense showy spikes of rich azure-blue helmet-shaped flowers above elegant palmate foliage. Grand delphinium-style blooms rarely need staking. 'Arendsii' produces slightly larger flowers and has a more compact habit than the common monkshood we've carried for the last several years. For cutflowers, cut when $^{1}/_{3}$ to $^{1}/_{2}$ the spike is in bloom. I love watching bumblebees climb under the hood and completely disappear into the flowers then clamber out again covered with pollen. Prefers partial shade. Plant 15–20" apart in moist soil. 36–40" tall. Z3. *Caution: all parts of the plant are poisonous; wash hands after handling.*



***L620A**: 1 for $4.00*
***L620B**: 3 for $8.75*
***L620C**: 6 for $16.00*

***Alcea rosea* Hollyhock** Self-sowing staple of old-fashioned gardens, hollyhocks produce tall spires covered with flowers for extended bloom through July and August. Helena Rutherford Ely states in her 1903 book *A Woman's Hardy Garden*, "No one can have too many hollyhocks. Plant them at the back of the border, among shrubbery, along fences, and in good clumps in any odd corner, or around buildings; they are never amiss, and always beautiful." Our offering this year illustrates the meaning of **fully double** in garden-talk. While **single** flowers have, yes, a single row of petals around their centers, **doubles** have *many* rows of petals. A fully double flower is the most extravagant, being totally filled with petals. Officially perennial, hollyhocks can be short-lived, and unless otherwise noted, are best cultivated as biennials which readily self-sow once established in favorable conditions. Wind protection or staking is essential. 5–6' tall. Z3.



***A. r.* 'Mars Magic'** Bring a vintage look back to your homestead with this classic single bright-red hollyhock. Produces flowers in the first growing season! This cultivar from the Spotlight Series is truly perennial, not biennial like most Alceas on the market. For those of you who missed out last season, we brought back this popular favorite. Order early!

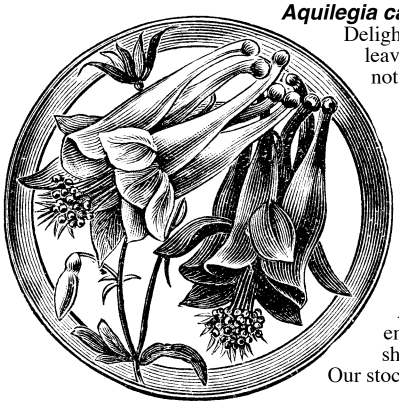
***L621A**: 1 for $3.75*
***L621B**: 3 for $9.50*
***L621C**: 6 for $17.00*

***A. r.* Sizzling Singles Collection** We handpicked the best of the best to make this hot summer hollyhock collection. Featuring a beautiful single bicolor from the Halo Series and two singles from the true perennial Spotlight Series. Halo 'Red & Yellow' forms stately spires of large striking bright red blossoms with golden yellow haloes in the centers. Next in the show from the Spotlight Series is 'Black Knight' a dusky midnight-purple beauty, and finally 'Mars Magic,' a stunning bright red that lights up the landscape.

***L622A**: 3 for $11.50*

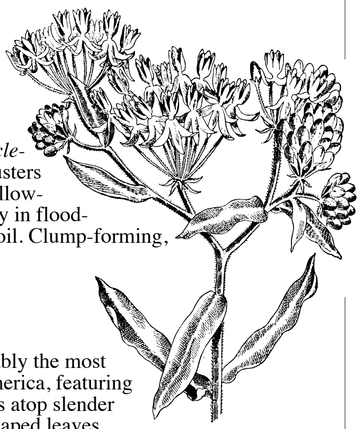
***A. r.* 'Peaches and Dreams'** Large fully double, spherical creamy-peach flowers with hints of raspberry-pink and apricot. Simply stunning in a vase.

***L623A**: 1 for $4.25*
***L623B**: 3 for $10.00*
***L623C**: 6 for $18.00*



Aquilegia canadensis **Wild Columbine** Delightful little stacks of round-lobed leaves emerge in early spring when not much else is green. Soon after, magical jewel-like nodding blossoms dance above the foliage, forming delicate red-spurred sepals with yellow petaled skirts. The elegant slender spurs are filled with nectar irresistible to pollinating hummingbirds. Blooms from late May to early June. This lovely northeast American native is best planted en masse, 8–12" apart in dappled shade to guarantee the best color. Our stock is MOFGA-certified organic, propagated at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

L624A: *1 for $5.75*
L624B: *3 for $15.75*
L624C: *6 for $28.00*



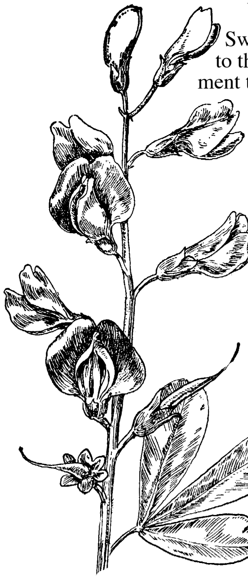
Asclepias Named for Asklepios, the Greek god of healing. Commonly known as **Pleurisy Root**, dried roots from the genus were traditionally used in small doses as an expectorant, anti-inflammatory and general tonic. Attracts all manner of bee and butterfly. Watch one of the miracles of summer unfold before your eyes as monarchs lay their eggs on the leaves—a nutritious food source for the resulting caterpillars. This year's stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

A. incarnata **Swamp Red Milkweed** This is not the common milkweed we in the Northeast are all so familiar with. *Asclepias incarnata* forms unique flattened clusters of upturned red-rose colored flowers. Willow-like leaves are 4–5" long. Grows naturally in floodplains and wet meadows. Prefers moist soil. Clump-forming, great for naturalizing. 5' tall.

L625A: *1 for $6.25*
L625B: *3 for $16.00*
L625C: *6 for $28.00*

A. tuberosa **Butterfly Weed** Undeniably the most brilliant summer wildflower in North America, featuring vivid tangerine-orange clusters of flowers atop slender fuzzy stems, covered with green lance-shaped leaves. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. Plant in full sun, 18–24" apart in well-drained fertile soil. 24" tall.

L626A: *1 for $6.25*
L626B: *3 for $16.00*
L626C: *6 for $28.00*



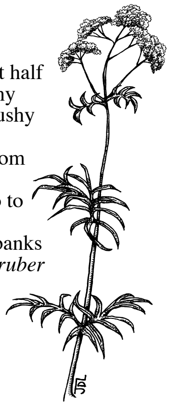
Baptisia is a member of the pea family, and you'll notice a resemblance in its attractive leguminous grey-green foliage. Pea-like blossoms form on lupine-style flower stalks. Swollen seed pods turn black in fall, adding interest to the autumn landscape, and providing a unique element to dried floral arrangements. Forms a bushy habit and shrub-like structure once mature. Will develop an extensive root system, good for holding slopes to prevent erosion. Plant 3' apart in full sun and well-drained slightly acid soil. Grows 3–4' tall and just as wide.

B. australis **Blue False Indigo** 2010 Perennial Plant of the Year. An early summer stand-out with vibrant blue lupine-like flowers. Z3.

L627A: *1 for $5.25*
L627B: *2 for $9.00*
L627C: *3 for $11.75*

B. sphaerocarpa **x** ***B. alba*** **'Carolina Moonlight'** Elegant spikes of creamy lemon-yellow blossoms. Long blooming. 3" plugs. Z4.

L628A: *1 for $5.50*
L628B: *2 for $9.50*
L628C: *3 for $12.00*



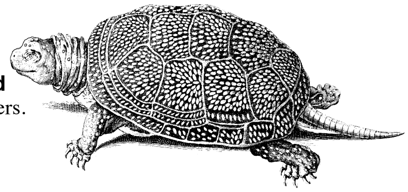
Centranthus ruber **'Coccineus' Red Valerian** Historically known as **Jupiter's Beard**, and passionately planted throughout the mid-Atlantic states during the first half of the 19th century. Red Valerian generates clusters of tiny star-shaped carmine-rose flowers on erect stems above bushy masses of glossy grey-green lance-shaped foliage. Clump-forming plant produces fragrant showy blooms from spring till frost, performing best in the early part of the season. Deadhead to encourage steady blooms or let it go to seed to start a new generation. Good for the naturalized border, cottage or cutting garden. Useful planted on dry banks to combat soil erosion. Strictly ornamental, *Centranthus ruber* does not share the same medicinal qualities as *Valeriana officinalis*, offered on page 70. Plant in full sun or part shade, in dry limey soil. 24–36" tall Z4.

L629A: *1 for $5.50*
L629B: *3 for $14.25*
L629C: *6 for $22.00*

Chelone **Turtlehead** *Chelone* is Greek for 'tortoise,' hence its common name Turtlehead. Chelone bears upright stems with boldly veined shiny green leaves topped by elegant spikes of hooded flowers that are shaped very much like a turtle's head. Try planting en masse at the mouth of a woodland path. Deer avoid the bitter foliage. Perfect in moist woods or at the water's edge—these pleasing late-season flowers will flourish in a wide range of moist soils, from clay to sandy, as long as they're not waterlogged. Plant about 12" apart in dappled sunlight. Grows 2–3' tall and just as wide. Z4.

C. glabra **'Alba' White Turtlehead** Unique native wildflower features white hooded blossoms.

L630A: *1 for $3.50*
L630B: *3 for $9.25*
L630C: *6 for $16.75*

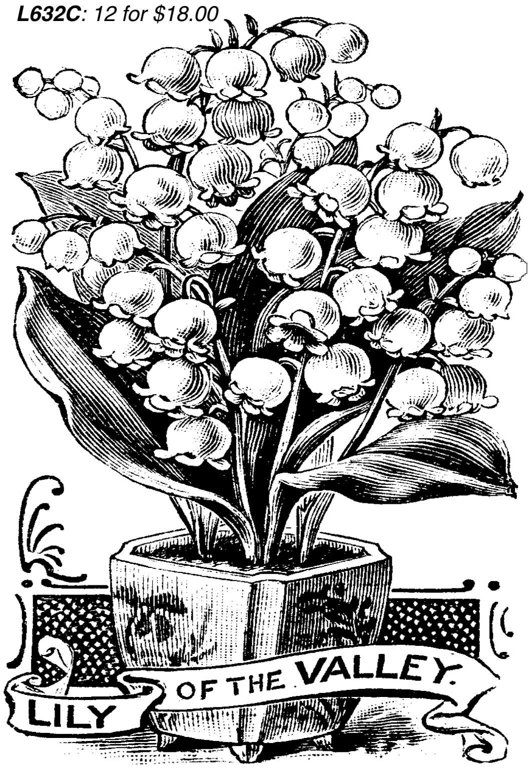


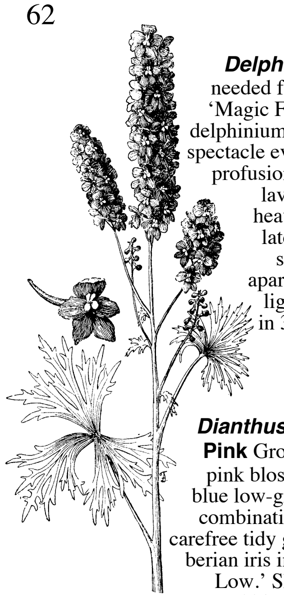
C. obliqua **Rose Turtlehead** Large rosy-purple hooded flowers.

L631A: *1 for $3.50*
L631B: *3 for $9.25*
L631C: *6 for $16.75*

Convallaria majalis **Lily of the Valley 'Bordeaux'** Burgundy tinted stems of fragrant bright white bell-shaped flowers are held above shiny dark green leaves, followed by small bright orange berries. Bordeaux produces larger flowers on taller stalks than the species. Intoxicating fragrance and delicate shape add welcome notes to bouquets. Makes a hardy bedding or border plant and is a vigorous ground cover, even in dry shady areas. Can become invasive, so choose your spot wisely. Easy to grow under any conditions, but prefers partial to full shade. Plant pips 2" deep, 3–5" apart in rich moist soil. *Caution: all parts of the plant are poisonous; wash hands after handling*. 6–9" tall. Z2.

L632A: *3 for $6.00*
L632B: *6 for $10.00*
L632C: *12 for $18.00*





***Delphinium* 'Magic Fountains' Mix** No staking needed for these stunning sturdy 3' flower spikes. The 'Magic Fountains' series is easier to grow than the big delphiniums—as they get established they make a larger spectacle every summer, coming to rival the big ones for profusion of lavish flowers. Mix includes white, pink, lavender, lilac, sky blue and dark blue. They are heavy feeders: sidedress lightly in early, mid and late spring for best show. Remove spent flowerstalks to encourage fall rebloom. Plant 12–24" apart in highly fertile non-acid loam in full sun or light shade. 28–36" tall. Our plants this year are in 3" plugs. Z3.

***L633A**: 1 for $4.00*
***L633B**: 3 for $9.50*
***L633C**: 6 for $17.50*

***Dianthus gratianopolitanus* 'Firewitch' Cheddar Pink** Grow your own galaxy of clove-scented electric-pink blossoms with serrated petals on luminous silver-blue low-growing mats of evergreen foliage. A stunning combination of fragrance, foliage and flower. Beautiful carefree tidy groundcover. An excellent complement to Siberian iris in early spring and later with Nepeta 'Walkers Low.' Shear off the spent flowerheads to encourage a second bloom in the fall. Plant in full sun, 9–12" apart in light well-drained soil. Be careful not to overwater. 7–8" tall. Z3.

***L634A**: 1 for $4.75*
***L634B**: 3 for $12.50*
***L634C**: 6 for $22.00*

***Dicentra spectabilis* Bleeding Heart** Graceful racemes arch over clumps of attractive cut foliage. Distinctive heart-shaped flowers dangle in a row on each raceme like charms on a bracelet. This classic hardy long-lived perennial thrives in rich moist soil and partial shade. Plant 2–4" deep, 24" apart. Blooms in early to mid-spring, goes dormant in summer. 30–36" tall. Z3.

***D. s.* Old-Fashioned Bleeding Heart** Quintessential garden favorite delights every spring with pink heart-shaped flowers with a white detail. Excellent cutflower. Prefers plenty of room to bush out.

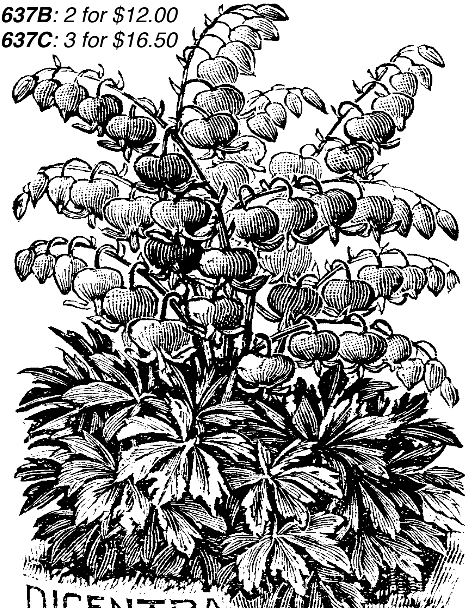
***L635A**: 1 for $4.25*
***L635B**: 3 for $9.00*
***L635C**: 6 for $16.00*

***D. s.* 'Alba' White Bleeding Heart** Elegant chains of *white* heart-shaped flowers dangle beneath the arching leafless racemes. Forms large bushy clumps of light-green foliage. An essential addition to the cutflower garden.

***L636A**: 1 for $4.50*
***L636B**: 3 for $9.50*
***L636C**: 6 for $17.50*

***D. s.* 'Valentine' Bleeding Heart** A new twist on the classic favorite. Bright cherry-red flowers with white tips dangle from red-tinted arching stems. This is the first red Dicentra I've seen that is true to the classic form.

***L637A**: 1 for $6.50*
***L637B**: 2 for $12.00*
***L637C**: 3 for $16.50*



DICENTRA

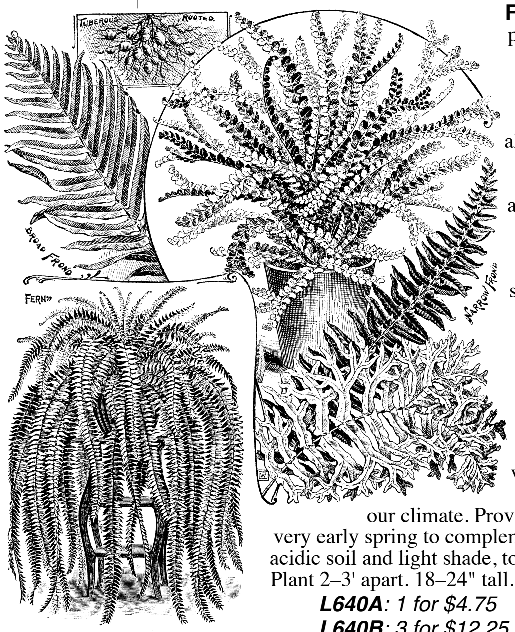
***Digitalis* Foxglove** Delightful tubular bell-shaped flowers with veined and spotted throats form along stately spires above basal rosettes of deep green velvet foliage. Flowers June through August. Good for cutting or the naturalized border. A must-have in every cottage garden. Plant 12–24" apart in moist slightly acid soil. Full sun to part shade. Z3. *Caution: all parts of the plant are poisonous; wash hands after handling.*

***D. grandiflora* 'Carillon'** True perennial foxglove. Pendulous bell-shaped flowers are a soft creamy yellow with mahogany specks on the inside of each bell. Prized for its subtle beauty and rugged hardiness. 12–15" tall.

***L638A**: 1 for $4.50*
***L638B**: 3 for $11.75*
***L638C**: 6 for $22.00*

***D. purpurea* 'Candy Mountain'** Unique upward-facing bell-shaped flowers are rose-pink with burgundy speckled throats. Blossoms completely surround the strong sturdy upright stems. Biennial. 36" tall.

***L639A**: 1 for $4.50*
***L639B**: 3 for $11.75*
***L639C**: 6 for $22.00*



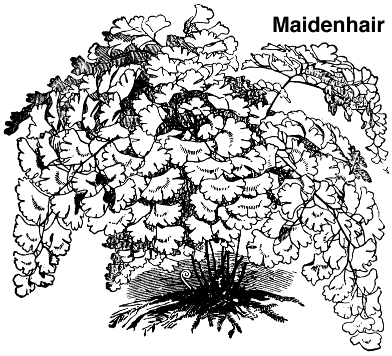
Ferns are flowerless spore-producing perennials represented by over 10,000 species worldwide, ranging from 70' tropical tree ferns to teensy plants sprouting from cracks in alpine rock. In Maine we enjoy lush fern displays all summer on the roadsides and in the woods. More and more people are using ferns as foundation plantings and in all kinds of shaded spots. Ferns make wonderful low-maintenance foliage plants that thrive in moist woodsy humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch if necessary to keep crowns from drying out.

Christmas Fern
Polystichum acrostichoides
Remains evergreen in warmer zones, where it's widely used for Christmas cut greenery. Shuttlecock of fronds with ladder-like parallel leathery dark green leaves is partially evergreen in our climate. Provides good fall interest and emerges in very early spring to complement woodland flowers. Prefers moist acidic soil and light shade, tolerates sun given sufficient moisture. Plant 2–3' apart. 18–24" tall. Northeastern native. Z3.

***L640A**: 1 for $4.75*
***L640B**: 3 for $12.25*
***L640C**: 6 for $22.00*

'Lady in Red' Fern *Athyrium filix-femina*
Unique version of the classic lady fern features bright light-green fronds with burgundy-red stems that grow deeper in color over time. Graceful lacy lance-shaped fronds are twice compound with numerous leaflets, resulting in a fine-textured classic fern appearance. Plant these shade-loving ladies 2' apart. 30–36" tall. Z3.

***L641A**: 1 for $5.50*
***L641B**: 3 for $14.25*
***L641C**: 6 for $25.00*

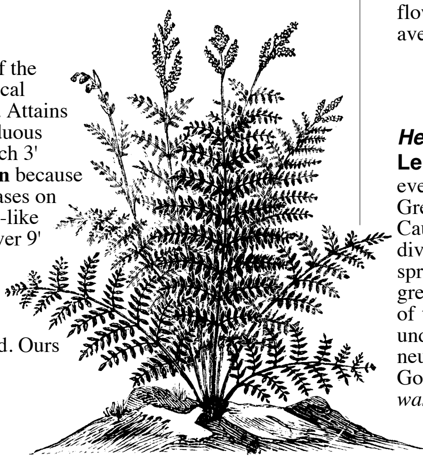


Maidenhair Fern or **Eastern Maidenhair** *Adiantum pedatum* Delicate whorled form makes it one of my favorites. Glossy black stems curve up and then droop toward the ground with more narrow black stems growing in elegant arches from the main stem. Tiny distinct ginkgo-like green leaves line every stem. Plant 12" apart. Grows 10–12" tall. Native to eastern North America. Z2.

***L642A**: 1 for $4.75*
***L642B**: 3 for $12.25*
***L642C**: 6 for $22.00*

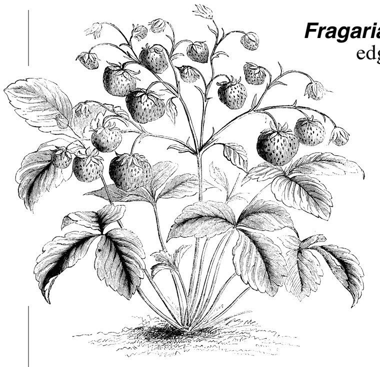
Ostrich Fern *Matteuccia struthiopteris* One of the largest hardy deciduous ferns, Ostrich fern features beautiful bright-green frond tips that curl like ostrich feathers, making this our best-selling fern for the last seven years. Spreads by underground runners, and will form large colonies if given the chance. Likes open shade, woods and wet banks. Tolerates sun in swampy areas. Native to Europe, but well established and welcome in North America. 3–6' tall. Z2.

***L643A**: 1 for $4.50*
***L643B**: 3 for $11.50*
***L643C**: 6 for $20.75*



Royal Fern *Osmunda regalis* One of the showiest garden ferns, makes a great focal point at the waterside or in a woodland. Attains giant proportions! Soft and wavy deciduous lance-shaped light green fronds can reach 3' long. Sometimes called **Flowering Fern** because some of the fronds have brown spore cases on their tips which lend a decorative tassel-like appearance. Reaches up to 6' tall and over 9' wide at maturity. Evolutionarily speaking, *Osmunda* is one of the oldest plant genera, native to North and South America and Asia. Some royal fern individuals are said to be 1000 years old. Ours are much younger. Z3.

***L644A**: 1 for $4.50*
***L644B**: 3 for $11.50*
***L644C**: 6 for $20.75*



***Fragaria vesca* Alpine Strawberry** Great for edging walkway, bed or border; spreads by runners that root as they go. Familiar compound leaves and white flowers are followed by juicy sweet rich red berries from late spring till fall. Leaves are considered blood purifying and diuretic in European folk tradition. Plant in full sun, 8–12" apart in slightly acid moist well-drained soil. 4–8" tall. Our stock is MOFGA-certified organic, grown at Ripley Farm in Dover-Foxcroft. Z3.

ME Grown.

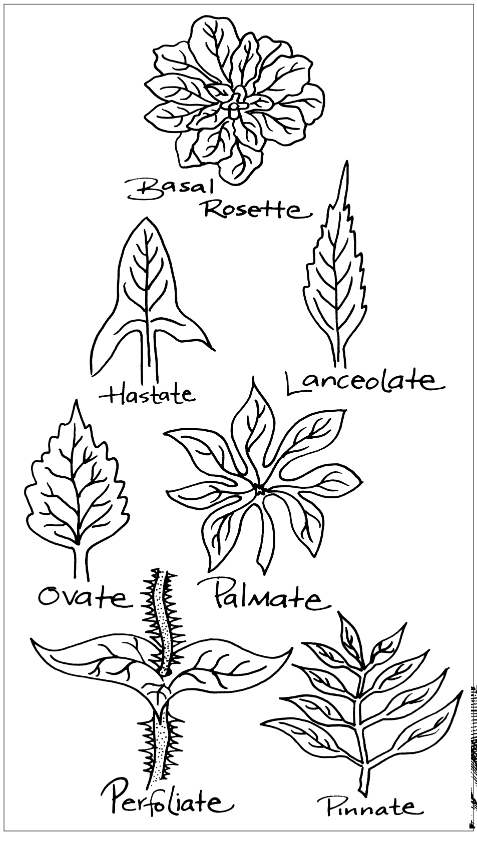
***L645A**: 1 for $6.25*
***L645B**: 3 for $16.00*
***L645C**: 6 for $28.00*

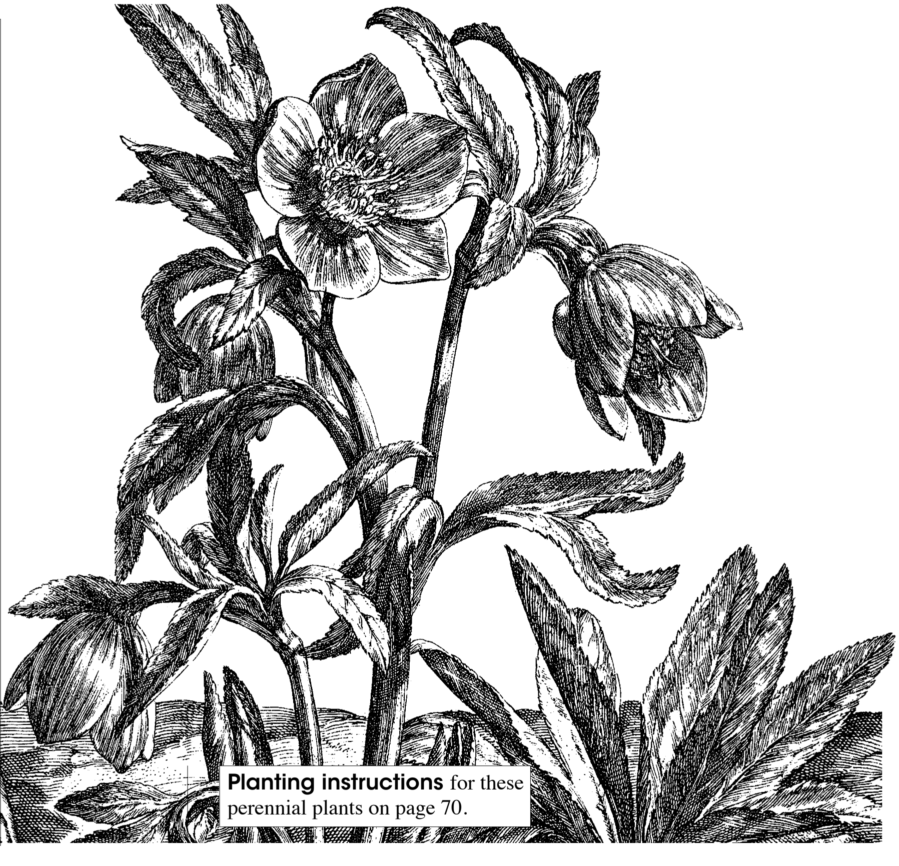
***Geranium sanguineum* 'New Hampshire Purple' Cranesbill** Considered one of the best of the low-growing geraniums. This long-blooming variety is covered with $1^{1}/_{2}$" magenta-purple saucer-shaped blossoms. In autumn, the compact spreading mounds of foliage turn a brilliant shade of crimson-red while distinctive long narrow "cranesbill" seedpods flutter jauntily above the finely cut leaves. Tolerates partial shade, but flowers more in full sun. Plant 12–18" apart in average garden soil. 12–18" tall. Z3.

***L646A**: 1 for $4.25*
***L646B**: 3 for $10.00*
***L646C**: 6 for $17.00*

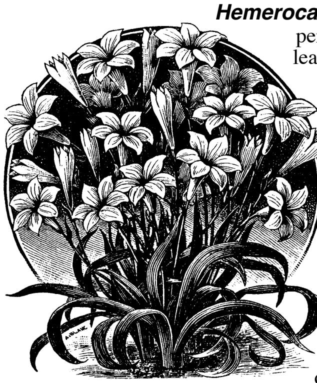
***Helleborus orientalis* 'Winter Thrillers' Lenten Rose** Mysterious and slightly sinister, evergreen in all but the coldest climates, hellebore was named by the ancient Greeks and is native to the chalky soils of Macedonia, Asia Minor and the Caucasus. Looks like a small shrub, with leathery green leaves palmately divided into multiple lobed leaflets. Saucer-shaped flowers appear in early spring and last up to eight weeks. Colors include red, pink, purple, yellow, green, apricot and more! Some blossoms will be heavily spotted and a few of the flowers will be double. Hellebore is a vigorous multiplier, and if left undisturbed can form clumps up to 3' across. Plant in dappled shade, in neutral to alkaline soil with plenty of organic matter and good drainage. Goes dormant in summer. *Caution: all parts of the plant are poisonous; wash hands after handling*. 15–18" tall. Z4.

***L647A**: 1 for $9.50*
***L647B**: 2 for $16.25*
***L647C**: 3 for $23.00*





Planting instructions for these perennial plants on page 70.



***Hemerocallis* Daylily** Champion low-maintenance perennial produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September. *Hemerocallis* means 'beautiful day,' referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Trouble-free, chokes out weeds. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12–18" apart in average soil; benefits from an annual shovel or two of compost. Z2. The first three varieties are from Lew Purinton, Somerville, ME, gardener and daylily collector *extraordinaire*. Supplies may be limited; order early.

***H.* 'Ben Kirk'** Unique 6" tawny-orange blossoms with lightly ruffled edges, deep chestnut eyes and yellow star-shaped throats. Grower Lew Purinton casually planted a generous stand of these tall and handsome beauties behind Court Troubador with sensational results. Take a look at their picture on our website if you can; they make a fabulous pair. Barth introduction. Early to midseason rebloomer. 36" tall. **ME Grown.**

***L648A**: 1 for $4.50*
***L648B**: 3 for $11.50*
***L648C**: 6 for $20.50*

***H.* 'Court Troubador'** stole the show at Lew's gardens this year with its sensational cherry-red narrow-petaled star-shaped blossoms. 5–6" wide flowers have fine ivory midribs which trace down to a glowing stippled apple-green throat. Early to midseason. 24–30" tall. **ME Grown.**

***L649A**: 1 for $4.50*
***L649B**: 3 for $11.50*
***L649C**: 6 for $20.50*

***H.* 'Earth Angel'** A peaceful beauty with her sunny apricot blossoms, elegant ruffled edges, creamy white midribs and tiny light green throats. Eye-catching $4^{1}/2$" spherical flowers are near perfect in form. Early to midseason rebloomer. 25" tall. **ME Grown.**

***L650A**: 1 for $4.50*
***L650B**: 3 for $11.50*
***L650C**: 6 for $20.50*

***H.* 'Night Beacon'** Radiant raspberry-purple blossoms with a darker purple eyezone and a large luminous lemon-yellow throat. $4^{1}/2$" flowers light up the landscape with showstopping color. Early to midseason rebloomer. 27" tall.

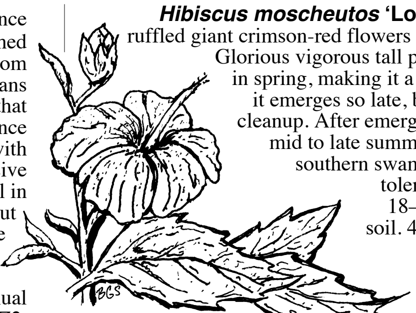
***L651A**: 1 for $4.50*
***L651B**: 3 for $11.50*
***L651C**: 6 for $20.50*

***H.* 'Omomuki'** Fragrant 5" wide bright clear citron-yellow blossoms with ruffled petals and apple-green throats. Early to midseason. Known for its extensive blooms and exceptional color. 26" tall.

***L652A**: 1 for $8.00*
***L652B**: 2 for $15.00*
***L652C**: 3 for $21.00*

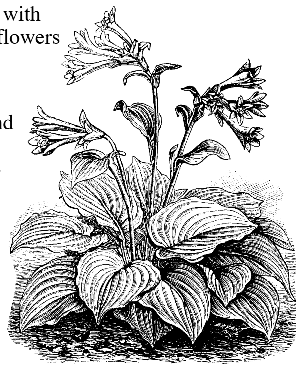
***H.* 'South Seas'** Fragrant stunning 5–6" wide iridescent tangerine-coral flowers with a reddish-coral eyezone above a yellow-green throat. Midseason rebloomer. Chicago Apache and Ming Porcelain are its parents. 30" tall.

***L653A**: 1 for $4.50*
***L653B**: 3 for $11.50*
***L653C**: 6 for $20.50*



***Hibiscus moscheutos* 'Lord Baltimore' Rose Mallow** Brilliant ruffled giant crimson-red flowers span 10" across with overlapping petals. Glorious vigorous tall plant, hibiscus is one of the last to appear in spring, making it a good companion for spring bulbs. Since it emerges so late, be careful not to root it out during spring cleanup. After emerging, it grows like crazy. Starts blooming mid to late summer and goes until frost. Though native to southern swampy margins and meadows, hibiscus will tolerate dry soil once fully established. Plant 18–24" apart in full sun and average garden soil. 4–5' tall. Hardy to Zone 4!

***L654A**: 1 for $10.50*
***L654B**: 2 for $17.00*
***L654C**: 3 for $23.50*



Hosta has bold foliage in orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and cherished low-maintenance border plant provides shade-loving ground cover from spring to frost. With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Hostas tolerate a wide range of soil conditions, but need moisture. Those with blue and variegated leaves develop their best color in shade. Deep shade gives fewer flowers. Plant 2–4' apart in rich soil with adequate humus. Divide every 4–5 years, or disturb clumps as little as possible; they improve with age as they spread and establish. Z3.

***H.* 'Blue Hawaii'** features solid smoky blue-green rounded lightly puckered leaves and fragrant white flowers. Foliage maintains good color throughout summer and develops a slightly upright vase-shaped appearance. Will tolerate some sun. 42" tall and 30" wide.

***L655A**: 1 for $5.50*
***L655B**: 2 for $9.50*
***L655C**: 3 for $12.00*

***H.* 'Dream Queen'** Distinctive puckered heart-shaped leaves have broad blue-green margins with a solid green detail next to buttery yellow centers. A royal sport of 'Great Expectations' with improved bold variegation, a speedier growth habit and better sun tolerance. White flowers. 18" tall and 26" wide.

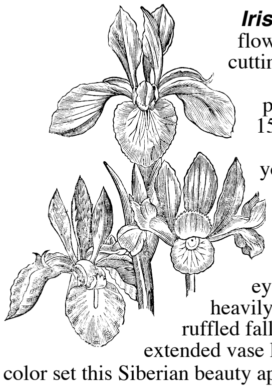
***L656A**: 1 for $5.50*
***L656B**: 2 for $9.50*
***L656C**: 3 for $12.00*

***H.* 'Snow Cap'** Softly puckered large heart-shaped leaves with wide creamy-white margins and frosty blue-green centers topped with unique purple-striped flowers. 24" tall and 36" wide.

***L657A**: 1 for $5.50*
***L657B**: 3 for $12.00*
***L657C**: 6 for $18.00*

***H.* 'T Rex'** Just when you thought it was safe to walk in the garden this monster looms over the border. Glorious giant clumps of deeply veined and puckered blue-green leaves that measure 18" long and 14" wide! Stunning planted as a specimen. 30" tall and 80" wide.

***L658A**: 1 for $5.50*
***L658B**: 2 for $9.50*
***L658C**: 3 for $12.00*



***Iris sibirica* Siberian Iris** In late June, delicate flowers dance atop strong thin stems excellent for cutting. Tall slender slate-green foliage looks good all summer. Tolerates most conditions, but performs best in rich moist acid soil. Plant 12–15" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years. Once again we offer locally grown stock from beautiful Fieldstone Gardens in Vassalboro. Z3.

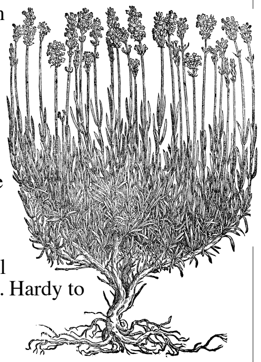
***I. s.* 'Great Falls Love'** looks like a refined version of a German bearded iris with eye-catching $5^1/_2$" wide vibrant violet blossoms, heavily ruffled upright standards and wide-spreading ruffled falls with an icy-lemon blaze. Long bloom time, extended vase life, unusual ruffled form and strong saturated color set this Siberian beauty apart from all the rest.

***L659A**: 1 for $9.25*
***L659B**: 2 for $17.00*
***L659C**: 3 for $23.00*

***I. s.* 'Ruffled Velvet'** Exquisite velvety $4^1/_2$" blossoms with unique finely cut, fancily feathered dark reddish-purple standards above plum-purple flared and ruffled falls with a gold and black blaze. Vigorous long-blooming tetraploid. McEwen intro, 1973. 24" tall. **ME Grown.**

***L660A**: 1 for $6.50*
***L660B**: 2 for $11.25*
***L660C**: 3 for $15.00*

***Lavandula angustifolia* Lavender** Valued for dried arrangements, potpourri and herb bundles, lavender's aroma soothes the nervous system and perfumes the linen closet. Blooms all summer. Makes a nice border, rockery, slope, edging or specimen plant. Plant in full sun, 12–18" apart in moist well-drained soil. 16–18" tall.



***L. a.* 'Munstead'** Sweet-scented lavender-blue flower spikes extend above aromatic silvery-green lanceolate foliage. Z4.

***L661A**: 1 for $5.75*
***L661B**: 2 for $10.50*
***L661C**: 3 for $14.25*

***L. a.* 'Vincenza Blue'** Vincenza's habit is more compact than common lavender with deeper green leaves and a powerful, less sweet, aroma. If you like the smell of lavender, this is for you. Bold deep violet-blue clustered flower spikes blossom from mid-July to early September. Flowers the first year without vernalization. Long-day perennial needs full sun. Sustainably grown by Lauren Cormier. 12" tall. Hardy to Z5. **ME Grown.** *Limited supply; order early.*

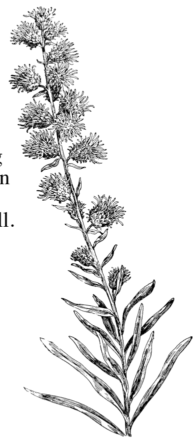
***L662A**: 1 for $6.50*
***L662B**: 2 for $12.50*
***L662C**: 3 for $16.75*

Growing Lavender as a Hedge

Lavender makes a fragrant 2–3' tall hedge that becomes wider than it is tall as it gets established.

We recommend a twice-annual shearing to encourage a strong bushy habit that produces a greater volume of flowers. In early spring, trim the lavender as close to the old wood as possible without cutting into it. If you do cut into the old wood it will *not* regenerate and no new shoots will grow from those stems.

Perform the second shearing as flowers fade at the end of the growing season. For best results sharpen up those hedge shears!

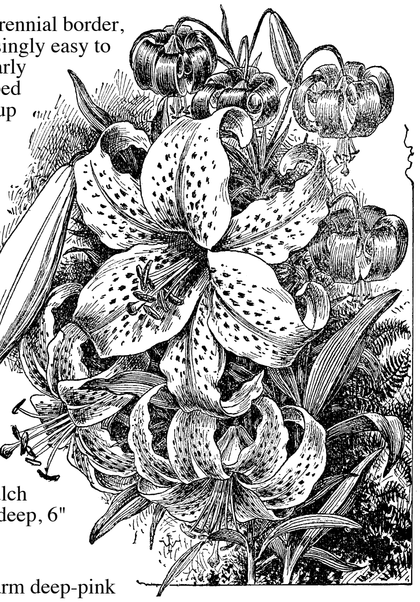


***Liatris spicata* Blazing Star** or **Gayfeather** grows stiff dense "bottlebrush" magenta-purple flower spikes above fine grass-like foliage. Flowers are good for cutting; leave $^1/_3$ of stem on plant. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. 20–30" tall. Z3.

***L663A**: 10 for $2.75*
***L663B**: 20 for $4.75*
***L663C**: 50 for $10.00*

Lily leaf beetle (*Lilioceris lilii*) has made its way to central Maine. We've had good results picking the first flush of adults and dropping them in soapy water; we've seen very few larvae. Some leaves had holes in them but the damage was nothing like the denuded stalks that some gardeners describe. Standard organic insecticides are also effective.

Small attractive bright red beetles (the adults) overwinter in soil and plant debris and emerge in early spring to munch, mate and lay tiny dull-orange eggs in irregular rows on the undersides of leaves. Larvae hatch in about a week and feed for 16–24 days on leaves of lilies (not daylilies), fritillaria and nightshades. The larvae are the real nuisance: voracious eaters, they carry their excrement on their backs to deter predators, which makes them mighty unappealing. They then drop to the ground where they pupate in cocoons. In about 25 days they emerge as adults.



***Lilium* Lily** Queen of the perennial border, fabulously showy and surprisingly easy to grow. **Asiatic** types bloom early with upward-facing star-shaped blossoms on stalks reaching up to 4' tall. **Oriental** strains bloom late with fragrant flamboyant slightly pendant blossoms on stalks capable of reaching heights well above 5'. This year we are also listing two classic **Tiger Lilies** for their unique beauty and exceptional ability to naturalize in the woodland garden.

Excellent as bedding plants or cutflowers, good as specimens or in solid masses. Light shade prolongs summer blooms and keeps the bulbs cool. Mulch in full sun. Plant bulbs 6–8" deep, 6" apart in slightly acid, rich well-drained soil. Z3.

***L.* 'Acupulco'** Oriental. Warm deep-pink petals with subtle hints of peach emerge from the lightly speckled throat. Long bloom time. Fabulous fragrance! 36–48" tall. $1^3/_4$–2" bulbs.

***L664A**: 2 for $3.50*
***L664B**: 6 for $10.00*
***L664C**: 12 for $17.50*

***L.* 'Cancun'** Asiatic. Orange-magenta petal tips with hot sunflower-yellow throats. A wild burst of tropical color. 36–48" tall. $1^3/_4$–2" bulbs.

***L665A**: 2 for $3.50*
***L665B**: 6 for $10.00*
***L665C**: 12 for $17.50*

***L.* 'Casa Blanca'** Oriental. Pure white with textured white specks and bobbing russet anthers. Absolutely gorgeous. Their alluring fragrance fills the garden. Always one of our most popular offerings. 40–44" tall (but we've seen them blooming from 3–8'). Great prices on 2–$2^1/_4$" bulbs.

***L666A**: 2 for $3.75*
***L666B**: 6 for $10.50*
***L666C**: 12 for $18.00*

***L.* 'Cobra'** Oriental. Deep dark smoldering red with narrow white edging. Upward-facing, intensely fragrant flowers. 32" tall. $1^3/_4$–2" bulbs.

***L667A**: 2 for $3.75*
***L667B**: 6 for $10.50*
***L667C**: 12 for $18.00*

***L.* 'Stargazer'** Oriental. Wildly popular for its fragrant deep-rose blooms with dark spots and narrow white edges. Flowers are huge when plants become well established. 24–30" tall. $1^3/_4$–2" bulbs.

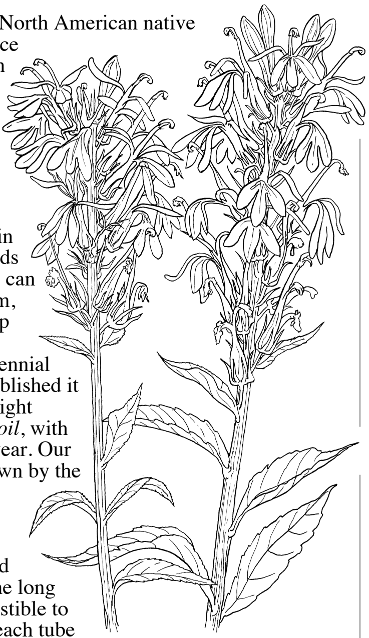
***L668A**: 2 for $3.50*
***L668B**: 6 for $10.00*
***L668C**: 12 for $17.50*

***L. tigrinum* Tiger Lily** (synonym *L. lancifolium*) Robust variety produces scads of fabulous orange nodding flowers with recurved petals generously flecked with dark purple dots. Prominent rusty-red anthers produce a beautiful mahogany pollen—my brother and I spent hours pulling off the anthers and painting each other's faces with the dust when we were kids. Tiger lilies are distinguished by purplish-black bulbils in the leaf axils along the stem. When the plant is happy, the bulbils will drop and sprout baby lilies by the score. A gorgeous ancient stand of these beauties on a back road in Belgrade is interplanted with vibrant hot pink phlox. The combination is "to die for"—and I nearly did on my morning commute while rubbernecking for a better look! Blooms in August in central Maine. 2–5' tall. Z2. $1^1/_2$–$1^3/_4$" bulbs.

***L669A**: 2 for $5.00*
***L669B**: 6 for $12.00*
***L669C**: 12 for $20.00*

***L. t.* 'Citronelle' Tiger Lily** Luminous lemon-yellow version of the classic tiger lily with densely spotted throats. $1^1/_2$–$1^3/_4$" bulbs.

***L670A**: 2 for $5.25*
***L670B**: 6 for $13.00*
***L670C**: 12 for $24.00*



Lobelia In early spring, this gorgeous North American native forms deep green rosettes, which produce tall green to burgundy-tinted stems with alternate lance-shaped leaves. Brightly colored flower spikes appear in midsummer. Unfortunately, habitat loss and thoughtless picking can spell disaster for this plant in the wild. Considered a short-lived perennial, Lobelia will naturalize beautifully and reseed year after year with proper care in the first growing season. Lobelia depends on its seeds for survival. Healthy plants can produce several thousand seeds per stem, which will only germinate well on damp open ground. Plant along the riverbank and streambed, edges of bog, in the perennial border or in the meadow. Once it's established it is absolutely stunning. Best planted in light shade to full sun in *consistently moist soil*, with minimal weed competition in the first year. Our stock is MOFGA-certified organic, grown by the conscientious folks at Ripley Farm in Dover-Foxcroft. Z3. **ME Grown.**

***L. cardinalis* Cardinal Flower** The striking scarlet-red flower spikes remind me of the plumage of an exotic bird. The long tubular intense scarlet flowers are irresistible to hummingbirds and butterflies because each tube has a pool of nectar at its base. Dense spikes grow up to 4' tall.

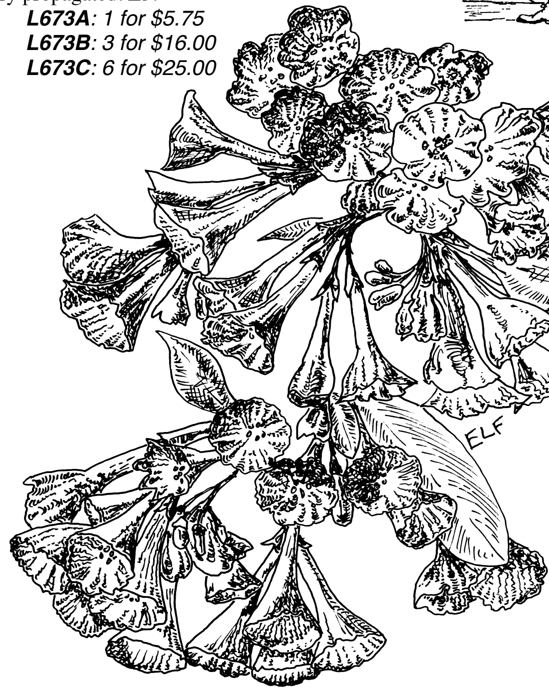
L671A*: 1 for $7.00*
L671B*: 2 for $12.50*
L671C*: 3 for $16.50*

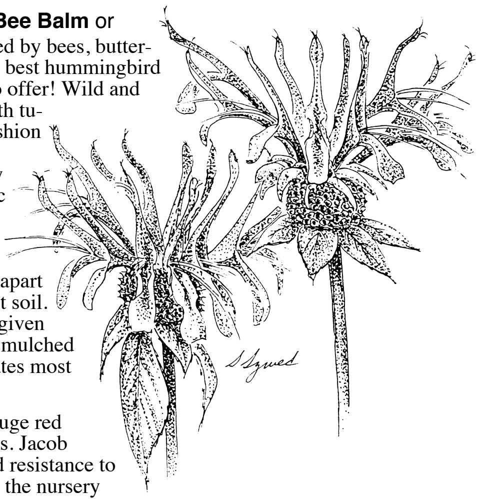
***L. syphilitica* Great Blue Lobelia** Comparable to *L. cardinalis*, only this lobelia produces bright beautiful blue-violet flowers. Dense spikes grow 3–5' tall.

L672A*: 1 for $7.00*
L672B*: 2 for $12.50*
L672C*: 3 for $16.50*

***Mertensia virginica* Bluebells** or **Virginia Bluebells** or **Virginia Cowslip** When Kip brought bluebells into the office during the daffodil bloom one year, I remembered what a spring treat they are. Clump-forming plant with erect stems and veined oval leaves bears clusters of nodding bell-shaped flowers on terminal cymes. Pink buds open to sky-blue or purple-blue flowers which look a lot like those of borage or Pulmonaria. In fact, the newer name is *M. pulmonarioides*. Beautiful in shade displays with ferns, with Dicentra, with daffodils or Scilla. Prefers moist lowlands and acid woodsy soil in part shade. 18–24" tall. Dormant in summer. Native to eastern North America, nursery propagated. Z3.

L673A*: 1 for $5.75*
L673B*: 3 for $16.00*
L673C*: 6 for $25.00*





***Monarda didyma* Bee Balm** or **Oswego Tea** is loved by bees, butterflies and is one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Aromatic foliage. Good for borders, for wet areas and for cutting. Plant crowns 16–20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. Z3.

***M.* 'Jacob Cline'** Huge red flowers span 5" across. Jacob shows good vigor and resistance to mildew. Embraced in the nursery trade as "the best red." And we couldn't agree more. 3–5' tall.

L674A*: 1 for $5.25*
L674B*: 3 for $13.00*
L674C*: 6 for $24.00*

***M.* 'Pink Lace'** Forms densely rounded clumps of bright green foliage topped with lipstick-pink flowers that have purple centers when fully open. Long blooming. Nice mid-sized selection for planting in pots or the center of the border. 14–16" tall.

L675A*: 1 for $5.25*
L675B*: 3 for $13.00*
L675C*: 6 for $24.00*

***M.* 'Purple Rooster'** Commands attention flaunting the rich royal purple that people crave. Huge blossoms atop long sturdy stems make this Monarda the one rooster you'll want wandering all over the garden. Excellent mildew resistance. 3' tall.

L676A*: 1 for $6.00*
L676B*: 3 for $16.00*
L676C*: 6 for $28.50*

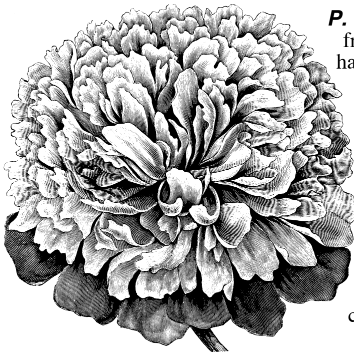
N.ACG.SPECHT

***Nepeta faasenii* Catmint 'Walker's Low'** 2007 Perennial Plant of the Year. Aromatic grey-green foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path. Flowers attract bees, butterflies, hummingbirds and human admiration. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil, full sun to part shade. 2–3' tall despite its name. Z3.

L677A*: 1 for $3.75*
L677B*: 3 for $9.75*
L677C*: 6 for $17.50*

***Paeonia lactiflora* Garden Peony** or **Chinese Peony** Red shoots appear in spring and form a bushy clump, about 3' x 3', of lustrous dark-green deeply lobed foliage. Fat spherical buds on sturdy stems above the foliage gradually open into large beautiful flowers from late spring to early summer. (Ants may help the buds to open so don't discourage their presence.) May take up to 3 to 5 years to establish before blooming and resents being disturbed. Wait several years, until the plants have many stems (therefore many eyes), before attempting to divide. Z3.

Again we are excited to list Maine-grown peonies. Eleesha Tonken maintains and breeds a collection of spectacular peonies at Harvest Hill Farm in Waldoboro. Each year she sends us home with a generous bucket of blooms and we fell in love with the graceful elegance of the single flowers, so for this season's Maine-grown offerings we selected two unique single varieties from her stunning collection.



***P. l.* 'Felix Crousse'** superb spherical fragrant double carmine-red blossoms have an iridescent silver sheen. Highly productive, providing a lavish supply of blooms for your cutflower market. Late season. 2–3 eyes.

***L678A**: 1 for $11.50*

***L678B**: 2 for $21.00*

***L678C**: 3 for $26.00*

***P. l.* 'Festiva Maxima'** Introduced in 1851. Heavenly scented large double white flowers with a light crimson drizzle upon the central petals. Early. 3' tall. 2–3 eyes.

***L679A**: 1 for $11.25*

***L679B**: 2 for $19.50*

***L679C**: 3 for $25.00*

***P. l.* 'Largo'** Sensational Japanese-type single with large 5" wide luminous flaming rose-pink bowl-shaped flowers with a fiery golden-orange sunburst of magenta-splashed stamenoids. The glowing suffusion of color at the center looks hand-painted. Fantastic long-lasting cutflower with remarkably rugged stems. Midseason. 2–3 eyes. **ME Grown.**

***L680A**: 1 for $17.00*

***L680B**: 2 for $30.00*

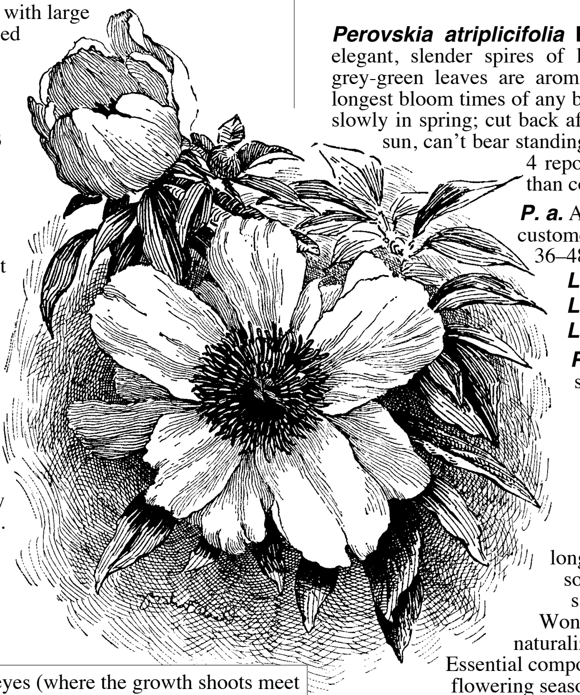
***L680C**: 3 for $40.50*

***P. l.* 'Sea Shells'** Satiny fragrant single bright light pink blossoms span 8" across with a slightly double tuft of yellow anthers in the center. Looks like a giant wild beach rose like the ones found scattered along the Maine coast. One of the few singles known to make a lasting cutflower. Rugged stems, no staking required. Tall elegant vigorous specimen. Adaptable to low-light conditions, the one growing at Harvest Hill Farm receives a maximum of 4 hours of sunlight a day and is still loaded with blooms. 1990 American Peony Society Gold Medal Winner. 3' tall. Midseason. 2–3 eyes. **ME Grown.**

***L681A**: 1 for $17.50*

***L681B**: 2 for $33.50*

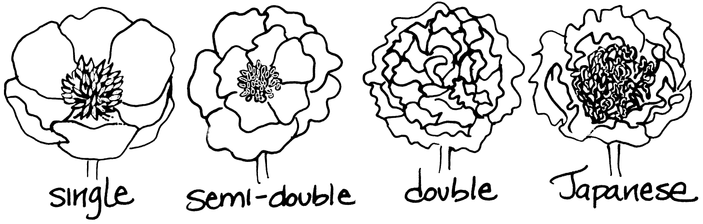
***L681C**: 3 for $45.00*

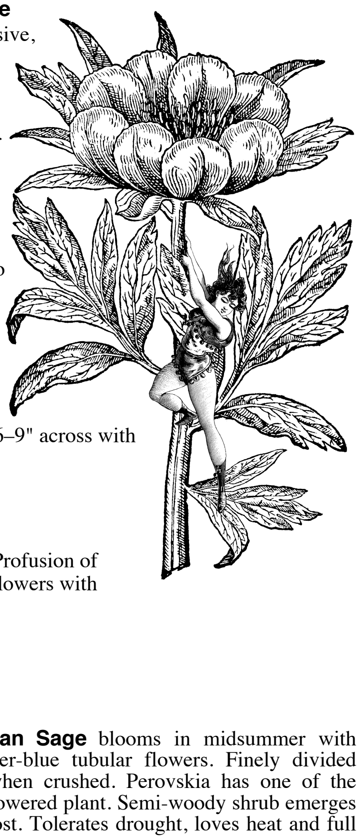


Garden Peonies Plant 2–3' apart with the eyes (where the growth shoots meet the root) no more than 1–1$^{1}/_{2}$" below the surface in well-drained soil, full sun to partial shade. Peonies are extremely long-lived so amend the soil richly when you plant. Compost, very well-rotted manure, bone meal and azomite are all recommended. After that they need only a bit of weeding and feeding to flourish.

Mature plants often need staking or tying because flowers and buds can be quite heavy. For big plants, I've been using a chicken-wire method that Mary Fowler recommended. Cut a flat circle of chicken wire 2 or 3' in diameter and place it on the shoots when they are 8–10" tall. The shoots lift the wire, grow through it and use it for an invisible support.

Remove spent flowers after blooming, then cut dead foliage to near ground level in fall. Plant along the driveway; a heavy snowbank doesn't bother them.





***Paeonia suffruticosa* Japanese Tree Peony** or **Moutan** is expensive, but as garden writer Peter Coats says, "It is worthwhile to sell everything one possesses to buy pæonies, and to dig up everything else in the garden to make room for them." Large stunning flowers in early June, before garden peony. Semi-double extravagantly big flowers with loose satiny petals. Full sun promotes fastest growth but also fades the flowers, which do best in dappled shade. 48–60" tall. 1-yr. plants may need 2–3 years to mature before blooming begins. Z4.

***P. s.* 'High Noon' Yellow Tree Peony** Fragrant semi-double bright clear yellow blossoms span 6–9" across with red flares in the center.

***L682A**: 1 for $38.00*

***L682B**: 2 for $68.00*

***L682C**: 3 for $85.00*

***P. s.* 'Houki' Red Tree Peony** Profusion of semi-double 6–9" wide bright red flowers with vibrant yellow centers.

***L683A**: 1 for $28.00*

***L683B**: 2 for $48.00*

***L683C**: 3 for $65.00*

***Perovskia atriplicifolia* Russian Sage** blooms in midsummer with elegant, slender spires of lavender-blue tubular flowers. Finely divided grey-green leaves are aromatic when crushed. Perovskia has one of the longest bloom times of any blue-flowered plant. Semi-woody shrub emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. Plant 24–36" apart. I suspect that Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

P. a. Always one of our top sellers. This long-standing customer favorite is prized for its loose airy open habit. 36–48" tall.

***L684A**: 1 for $4.50*

***L684B**: 3 for $11.00*

***L684C**: 6 for $19.50*

***P. a.* 'Little Spire'** offers a more compact, mid-sized upright habit than the species. 36" tall.

***L685A**: 1 for $5.00*

***L685B**: 3 for $11.50*

***L685C**: 6 for $20.00*

***Phlox paniculata* Garden Phlox** produces large spreading clusters of fragrant showy long-blooming flowers in mid to late summer when so many blooms are fading, and produces delicate satiny panicles when so many blooms are coarse. Wonderful color and fragrance for accents, border or naturalized area. Attracts butterflies and hummingbirds. Essential component of late-summer wedding bouquets. Extend flowering season by watering and prompt deadheading. Prefers humus-rich soil that stays cool and moist in summer, and benefits from regular sidedressing. Plant 2' apart, full sun to partial shade. Z3.

***P.* 'Bright Eyes'** Outstanding fragrant apple-blossom pink flowers with a vibrant hot-pink eyezone. Demonstrates excellent mildew resistance. 36" tall.

***L686A**: 1 for $5.50*

***L686B**: 2 for $9.25*

***L686C**: 3 for $12.00*

***P.* 'Laura'** Fragrant magenta-purple flowers with starry white spokes and dark eyes. Makes an excellent addition to the cutting garden. When I include Laura in mixed bouquets at my roadside stand they fly off the table in no time. Demonstrates excellent mildew resistance. 24–30" tall.

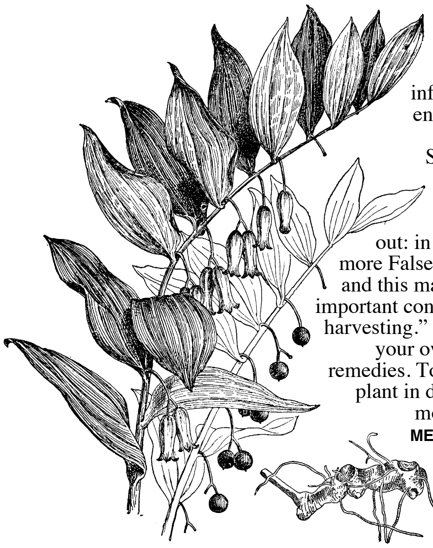
***L687A**: 1 for $5.25*

***L687B**: 2 for $9.00*

***L687C**: 3 for $12.00*

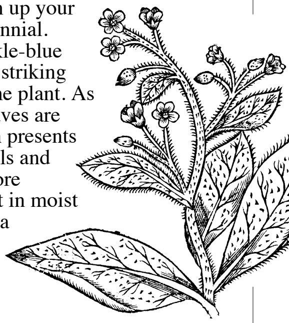
***Polygonatum biflorum* var. *commutatum* Giant Solomon's Seal** forms clumps of 3–5' graceful arching stems with long narrow alternate leaves. Greenish-white bell-shaped tubular flowers dangle from the stems in a row in late spring, and become small round inedible blue-black fruits in early fall. Native Americans used washes from the root on external injuries for its wound sealing properties. Western herbalists use the root as a connective tissue anti-inflammatory and to strengthen weak joints and ligaments. Easily confused with False Solomon's Seal which has a plume-like flower at the *end* of the stem. As herbalist Jim McDonald points out: in the woods, "there's always more False Solomon's Seal than True, and this makes its ecological status an important consideration, especially when harvesting." Therefore, it's best to grow your own patch for making herbal remedies. To achieve maximum height, plant in dappled sun to full shade, in moist rich woodland soil. Z3. **ME Grown.**

L688A: *1 for $5.25*
L688B: *2 for $9.00*
L688C: *3 for $12.00*



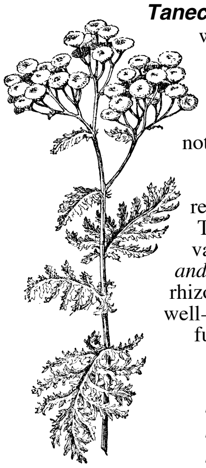
***Pulmonaria* 'Polar Splash' Lungwort** Brighten up your shade garden with this bold-textured woodland perennial. Pulmonaria blooms like a chameleon, with periwinkle-blue buds that open to charming pink flowers, creating a striking effect with both colors appearing at once on the same plant. As beautiful as a winter night sky, ovate slate-green leaves are dressed in vivid silver-white splotches. Polar Splash presents a brilliant early-season contrast to blooming daffodils and emerging hostas and ferns. Mildew-resistant and more sun-tolerant than most Pulmonarias. Plant 1–2' apart in moist soil and full to partial shade. Grows 9–12" tall with a spread up to 2' wide.

L689A: *1 for $4.00*
L689B: *3 for $9.50*
L689C: *6 for $17.00*



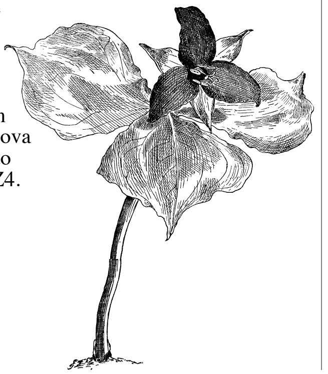
***Tanecetum vulgare* Tansy** People either love or hate this wild and wily beauty. There is no doubt that Tansy is a useful and beautiful plant. Tall and stately with aromatic feathery tooth-edged foliage and bold clusters of bright yellow button-like flowers that put on a show from mid-July to late fall. Adds a vibrant note to dried arrangements. High camphor content deters codling moth from fruit, repels borers particularly in peach trees, and is traditionally used in the home to repel ants, fleas, flies and mice. *Pregnant women avoid.* Tansy accumulates potassium from the soil making it a valuable addition to the compost heap. *Can be invasive, and is best planted in heavy clay soils* so the underground rhizomes will spread more slowly than they would in light well-drained conditions. Snip off the flower heads for even further control of its vigorous spreading nature. Plant 2' apart in full sun in heavy clay soil. *We cannot ship to MT, SD or WA.* Grows 4–5' tall.

L690A: *1 for $5.75*
L690B: *3 for $14.50*
L690C: *6 for $20.00*



***Trillium erectum* Red Trillium, Stinking Benjamin** or **Wakerobin** Our local wildflower preserve features huge patches of red trillium blooming in late April, a spectacular and pleasing sight. Maroon blossom with three petals and three sepals sits erect on a short stem above the three oval leaves in a single whorl. Grows in moist rich woods, full or part shade, from Nova Scotia to the mountains of Georgia, west into Michigan. 8–16" tall. Nursery propagated. Z4.

L691A: *1 for $4.00*
L691B: *3 for $10.25*
L691C: *6 for $18.50*



***Veronicastrum virginicum* Culver's Root** Makes a beautiful addition to the back of the perennial border and is a requirement in any well-built rain garden. Elegant towering North American native dons huge 9" flower spikes with densely clustered tiny white blossoms that open from the top down in early summer. Lance-shaped leaves form whorls on rugged upright stems. Bees love this flower. Plant 2' apart in full sun, in wet well-drained soil. Grows 4–6' tall yet rarely needs staking. Z3. **ME Grown.**

L692A: *1 for $6.75*
L692B: *2 for $12.00*
L692C: *3 for $16.00*

Herbaceous Medicinals

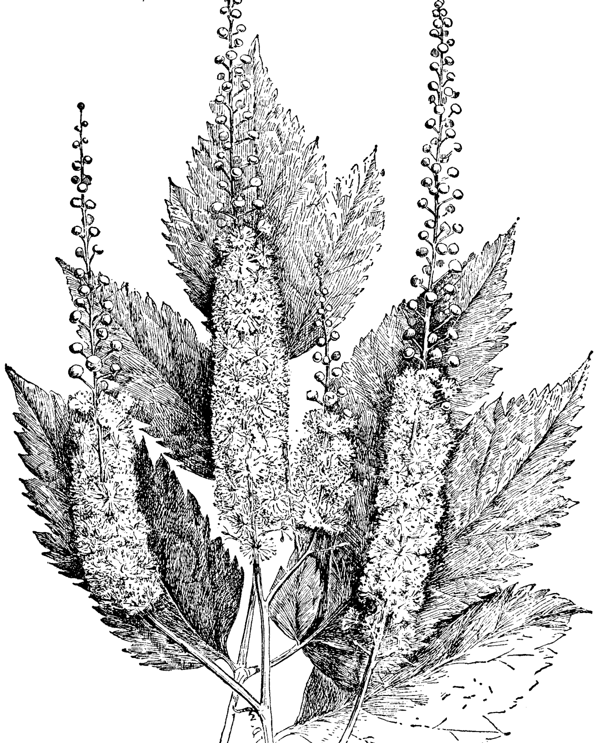
Your garden can be the perfect classroom for learning how Nature can offer solutions to its own problems. Growing plants as medicine allows you to observe their physical forms and spirits and may encourage you to explore the rich cultural histories surrounding the use of a vast array of plant species.

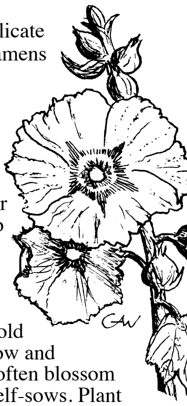
For safety's sake we urge you to consult a local herbalist or botanical apothecary before using medicine made from any plant. Accurate plant identification and research is vital for your own protection! Some of the plants listed are specifically for low-dose or homeopathic usage.

Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity. The organic listings are all certified by MOFGA.

Actaea racemosa* Black Cohosh** or **Black Snakeroot** Formerly known as ***Cimicifuga racemosa. Provides the ultimate backdrop for the lightly shaded woodland garden. From late July into August, long arching racemes of creamy white and gold serpentine flower spikes soar 6–10' over a 3–4' mound of fine-textured green compound foliage. Diuretic and anti-inflammatory. Anti-spasmodic for cramps, pains, cramped nerves and emotions, included in many premenstrual and perimenopausal formulas. Roots contain salicylic acid. *Pregnant women avoid.* Prefers part shade, but tolerates full sun in deep moist soil. Grows well in boggy spots. Develops large clumps of rootstock so give it room to spread. Plant 3' apart in rich moist soil, part sun, part shade. Our stock is certified-organic, grown by Joanna Linden at Shooting Star Farm in Canaan. Z3. **ME Grown.**

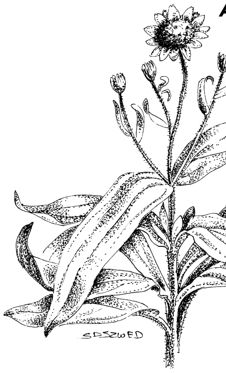
L693A: *1 for $7.50*
L693B: *2 for $13.75*
L693C: *3 for $18.00*





***Althaea officinalis* Marshmallow** Small delicate lavender-white flowers with darker lavender stamens appear up and down the stalks of this beautiful towering medicinal plant. I've been drawn to marshmallow ever since I watched charismatic herbalist Deb Soule rub its soft velvet leaf against her cheek and explain how much the ruby-throated hummingbird appreciates the nectar of marshmallow flowers. The leaf, flower and mucilagenous roots are traditionally used to soothe the mucous membrane linings of the lungs and digestive tract, and to calm the lining of the urinary tract. Leaf is best used *fresh* for tea, and the dried roots are best when soaked overnight in cool water for tea. Harvest 4-year-old roots for medicinal use. Wonderful in a hedgerow and magnificent planted with black cohosh as they often blossom together in late July and into August. Readily self-sows. Plant 1–2' apart in light moist soil, part sun, part shade. 5–8' tall. Our stock is certified organic, grown at Ripley Farm in Dover-Foxcroft. Z4. **ME Grown.**

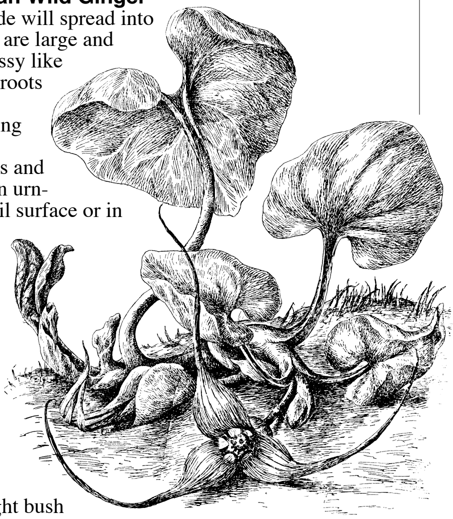
***L694A**: 1 for $7.25*
***L694B**: 2 for $13.50*
***L694C**: 3 for $17.00*



Arnica chamissonis Spreading groundcover with bright yellow daisy-like flowers used externally in oils and salves to treat bruises, sprains and inflammation. Never take internally except in homeopathic doses. In the right conditions a few plants will develop into a dense long-lived patch. Blooms in July. Grows successfully in our climate and is a generally accepted substitute for *A. montana*. Plant in full sun 1' apart in moist well-drained soil. Lauren Cormier sustainably grew these North American natives. Z3. **ME Grown.**

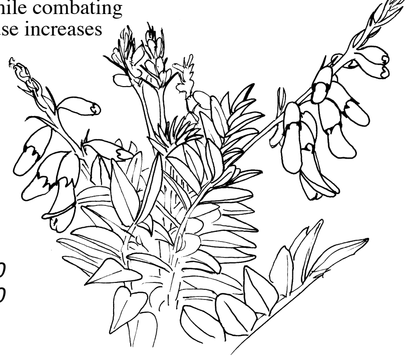
***L695A**: 1 for $7.00*
***L695B**: 2 for $12.50*
***L695C**: 3 for $16.50*

***Asarum canadense* Canadian Wild Ginger** Heart-shaped leaves up to 7" wide will spread into a beautiful groundcover. Leaves are large and slightly fuzzy, not small and glossy like the European species. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. Grown for roots and foliage. The small reddish-brown urn-shaped flowers grow near the soil surface or in the leaf mold so crawling insects will pollinate them. They're fun to search for but won't decorate your landscape. Requires shade and moist rich woodland soil. 6–12" tall. Z3.

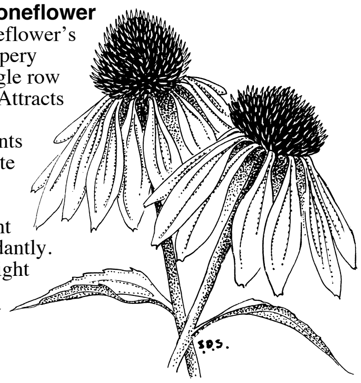


***L696A**: 1 for $4.25*
***L696B**: 3 for $11.50*
***L696C**: 6 for $18.00*

***Astragalus membranaceus* Chinese Milk Vetch** Root is *huang qi* in China. Deep-rooted leguminous plant forms an upright bush with many stems, each thickly covered with tiny pinnate leaves and small arching racemes bearing rows of whitish-yellow flowers. This important Chinese medicinal, when used over many months, is known to rebuild the immune system while combating exhaustion. Long-term tonic use increases stamina and improves resistance to cold temperatures. Harvest 4- to 6-year-old roots in fall. Plant in full sun, 12" apart in deep gravelly well-drained soil. 18–36" tall. Our stock is certified organic, grown at Ripley Farm. Z4. **ME Grown.**

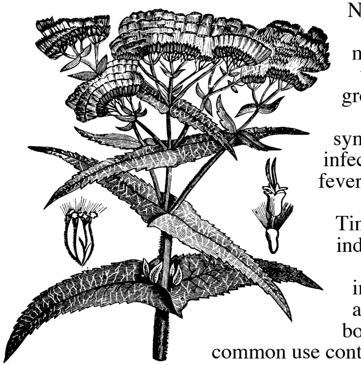


***L697A**: 1 for $8.00*
***L697B**: 2 for $15.00*
***L697C**: 3 for $19.50*



***Echinacea purpurea* Purple Coneflower** *Echinos* means 'spiny' and the coneflower's spiny seedheads are a beautiful coppery yellow-brown, surrounded by a single row of reflexed lavender-purple petals. Attracts butterflies and beneficial insects. Tincture the roots of 3-year-old plants for a remedy that gives an immediate boost to the immune system; use it when you feel a cold or flu coming on. Tolerates wind, heat and drought once established. Will reseed abundantly. Plant 20–30" apart in full sun and light sandy soil. Grows 3–5' tall. Our stock is certified-organic, grown by Joanna Linden. Z3. **ME Grown.**

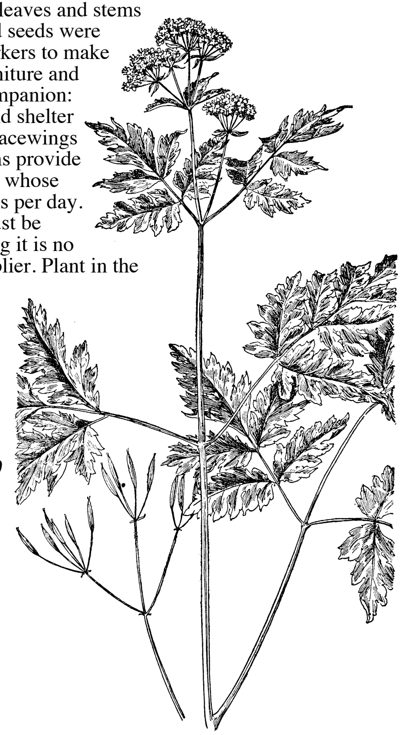
***L698A**: 1 for $7.00*
***L698B**: 2 for $12.50*
***L698C**: 3 for $16.50*



***Eupatorium perfoliatum* Boneset** Also called **Thoroughwort**. Majestic North American native with flat-topped clusters of creamy-white to milky-lavender flowerheads atop fuzzy upright stems with deeply veined dark green diamond-shaped perfoliate leaves. Traditionally used to alleviate the symptoms of "breakbone fever," a highly infectious disease known to cause extreme fever and aching pain that travels deep into the bones—hence the name boneset. Tincture of the flowering tops and leaves induces sweating, stimulates the immune system and acts as a mild anti-inflammatory. North American Indians and early colonial settlers administered boneset tea during flu epidemics, and its common use continued well into the 20th century. Peak bloom is mid to late August, providing a generous late-season supply of nectar for adult butterflies and other pollinating insects. Boneset is a practical and fetching addition to the wilder part of the orchard and perennial border. Plant 3' apart in moist soil and full sun to dappled shade. 5–7' tall. Grown by Lauren Cormier. Z3. **ME Grown.**

***L699A**: 1 for $7.00*
***L699B**: 2 for $12.50*
***L699C**: 3 for $16.50*

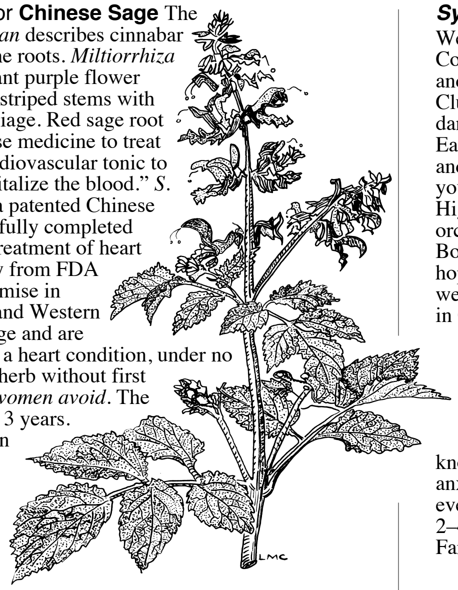
***Myrrhis odorata* Sweet Cicely** Highly aromatic medicinal herb, delicious for summer teas and garden nibbling. White flower umbels bloom in early summer turning into edible sweet green anise-flavored seeds that later form into long shiny ridged dark brown seedpods in fall. Valued for its antiseptic properties, improves digestion and fights flatulence by dispelling excess gas in the intestinal tract. Cook the young root or grate it raw to use as a vegetable. Use the young leaves and stems in soups and salad. Leaves and seeds were traditionally used by woodworkers to make an aromatic polish for oak furniture and paneling. A useful orchard companion: sweet cicely provides food and shelter for beneficial insects such as lacewings and parasitoid wasps. Blossoms provide nectar for the adult syrphid fly whose larvae consume up to 40 aphids per day. Self-sows readily, but seed must be sown fresh in the fall; by spring it is no longer viable. Vigorous multiplier. Plant in the wilder part of the border or along the woodsline. Prefers full sun but grows well in dappled shade underneath tree canopies. 2–6' tall. Z3. **ME Grown.**



***L701A**: 1 for $5.25*
***L701B**: 2 for $9.00*
***L701C**: 3 for $12.00*

***Salvia miltiorrhiza* Red Sage** or **Chinese Sage** The root is called *dan shen* in China. *Dan* describes cinnabar referring to the deep red color of the roots. *Miltiorrhiza* is Greek for 'red ochre root.' Vibrant purple flower spikes form on resinous burgundy-striped stems with fine-toothed blue-green pinnate foliage. Red sage root is primarily used in modern Chinese medicine to treat inflammatory diseases and as a cardiovascular tonic to improve "the heart energy" and "vitalize the blood." *S. miltiorrhiza* is a key ingredient in a patented Chinese herbal preparation that has successfully completed Phase II FDA trials for use in the treatment of heart conditions. Though it is a long way from FDA approval, red sage shows great promise in bridging the gap between Eastern and Western medicine. If you plan to use red sage and are currently undergoing treatment for a heart condition, under no circumstances should you use this herb without first consulting your doctor! *Pregnant women avoid*. The root attains harvestable size in 2 to 3 years. Plant in partial to full sun 2' apart in moist well-drained soil. 24" tall. Grown by Lauren Cormier. Z3. **ME Grown.**

L702A: *1 for $8.50*
L702B: *2 for $14.75*
L702C: *3 for $20.00*

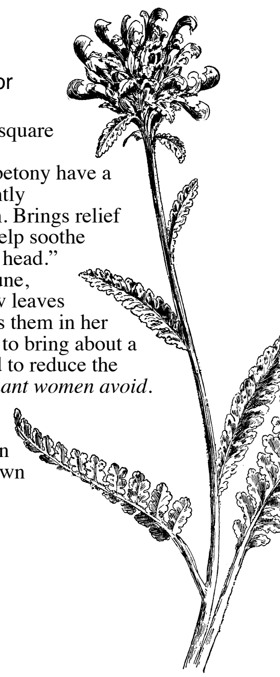


***Scutellaria baicalensis* Baikal Skullcap** The root is called *huang qin* in China. One of nature's most effective adaptogenic herbs, helping the body adapt to stress and restore normal function. Baikal skullcap reduces inflammation and strengthen the ability to fight allergic conditions such as asthma, hay fever and eczema. In traditional Chinese medicine, prescribed to knock out coughs with thick yellow phlegm and is most commonly used to battle gastrointestinal infections. Develops a shrub-like crawling habit with green lance-shaped leaves and vibrant indigo-blue blossoms. The root attains harvestable size in 3 to 4 years. Plant in partial shade, 1–2' apart, in light well-drained soil. Grows 1–4' tall. Sustainably grown by Lauren Cormier. Z4. **ME Grown.**

L703A: *1 for $7.00*
L703B: *2 for $12.50*
L703C: *3 for $16.50*

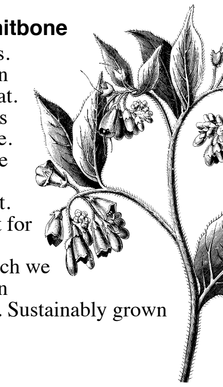
***Stachys officinale* Wood Betony** or **Woundwort** Dense whorls of pink to reddish-purple flower clusters form on square stems held above aromatic dark green scallop-toothed leaves. Aerial parts of betony have a long history of use as a nerve tonic, gently strengthening the entire nervous system. Brings relief from tension headaches and is said to help soothe nervous agitation and "maladies of the head." When the gardening frenzy begins in June, herbalist Lauren Cormier harvests a few leaves before the plant begins to flower, places them in her water jar and sips it throughout the day to bring about a sense of groundedness. Tincture is used to reduce the exhaustion caused by high fever. *Pregnant women avoid*. Grows well in the garden or will naturalize beautifully at the edge of the woods. Plant 12" apart in full to part sun in moist well-drained soil. 18" tall. Grown by Lauren Cormier. Z4. **ME Grown.**

L704A: *1 for $7.00*
L704B: *2 for $12.50*
L704C: *3 for $16.50*



***Symphytum officinale* Comfrey** or **Knitbone** Well-known for its skin-soothing properties. Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. Easy-to-grow vigorous plant demands space and *can be very invasive*; be careful where you plant it and control with regular harvest. Highly recommended as a companion plant for orchards. We are offering the species, not Bocking 14, the Russian sterile hybrid, which we hope to list next year. Space 16–24" apart in well-drained soil, sun or shade. 24–48" tall. Sustainably grown in China, ME. Z3. **ME Grown.**

L705A: *1 for $5.25*
L705B: *3 for $14.50*
L705C: *6 for $22.00*

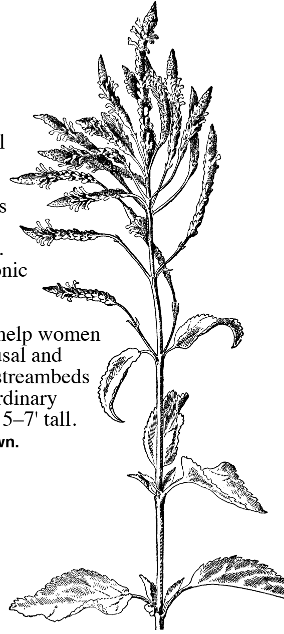


***Valeriana officinalis* Valerian** A strong and upright plant with small white or rosy flowers in flat clusters above glossy pinnate leaves. Well-known anti-spasmodic, nervine and sedative is often used for sleeplessness, anxiety and other nervous complaints. Divide or harvest thick rootstock every 4–5 years. Plant 12–15" apart in moist well-drained soil in full sun. 2–4' tall. Organically grown at Blessed Maine Herb Farm in Athens, ME. Z3. **ME Grown.**

L706A: *1 for $5.75*
L706B: *2 for $10.00*
L706C: *3 for $13.50*

***Verbena hastata* Blue Vervain** Elegant North American native with tall branching flower spikes of vibrant blue-purple flowers that whorl around the spikes one ring at a time. Honeybees mingle amongst the blossoms all day long when my blue vervain is in flower. Commonly used as a nervous-system tonic and mild sedative. Tincture of the fresh flowering tops is said to help ease stress-induced neck tension, as well as help women to navigate premenstrual, peri-menopausal and menopausal waters. Grows wild along streambeds and marshes but will happily grow in ordinary garden soil. Plant 1–2' apart in full sun. 5–7' tall. Grown by Lauren Cormier. Z3. **ME Grown.**

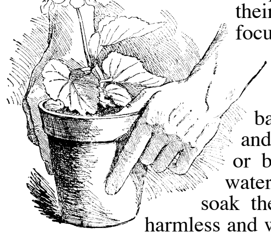
L707A: *1 for $7.00*
L707B: *2 for $12.50*
L707C: *3 for $16.50*



MASSAGE OIL
WARMING LINIMENT
EXTRA
FACE CREAM
HEAL-ALL SALVE
SDS.

Throughout the catalog you will find other plants that have a common tradition of medicinal use. These include alpine strawberry, asclepias, bee balm, blueberry, elderberry, high and lowbush cranberry, hops, lavender, linden, peony, rose, solomon's seal, witch hazel, eastern white pine and more. Our descriptions include notes about traditional medicinal use.

Planting Instructions for Bare-Root Perennial Plants



Treat bare-root perennials and plugs like tender annuals for their first growing season, when they typically focus on root growth. Once established, usually in the second year, they are vigorous and floriferous.

When you receive your order, open the bags and check the stock immediately. Roots and crowns should be firm and pliable, not soft or brittle. If they are slightly dry, add a little water or, if they are going to be potted up soon, soak the roots. Generally, a little surface mold is harmless and will not affect the plant's future performance. If you cannot pot them up immediately, store them in a cool (35–40°) location for a short time.

Pot up the rootstock in well-drained potting mix. Most plants need a deep 6" pot or a 1-gallon container. Avoid coiling the roots in the bottom of under-sized containers. Grow newly potted perennials for a few weeks in a protected location in indirect light at 50-60° and keep from freezing. Wet and/or cold conditions for an extended period may cause rotting. Begin feeding when new growth appears. Keep dry fertilizers away from plant crowns. Use animal manures with caution as they can promote fungal and bacterial diseases.

Transplant outside once they show some top growth and the danger of frost has passed. Dig a hole about twice the size of the pot, loosening the surrounding soil and adding compost or fertilizers as necessary. Generally, plant the top of the crown just below ground level, less than an inch from the surface of the soil.

Nearly all perennials appreciate a fall mulch and a sidedressing of compost or leaf mold in the spring.

New for 2014

- Heritage Apple Collections
- New Cider-Apple varieties
- Perry Pears
- Hardy Apricots
- Rare Rhubarbs
- New Kiwis
- Crabapple Collection
- Singleseed Hawthorn
- Sea Buckthorn
- Dutch Timber Willow
- Thor-Nox Black Walnuts
- New Maine Elderberries
- Seedlings of many species
- Sizzling Singles Hollyhock
- Lady in Red Fern
- Vincenza Blue Lavender
- Great Blue Lobelia
- Red Sage

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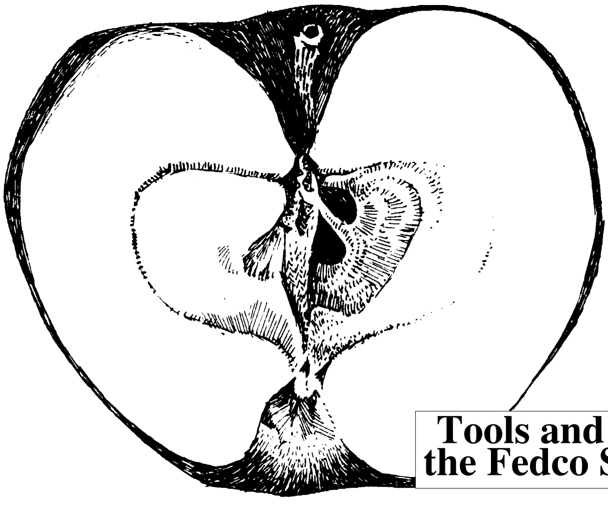

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4	-30° to -20°
5	-20° to -10°
6	-10° to 0°

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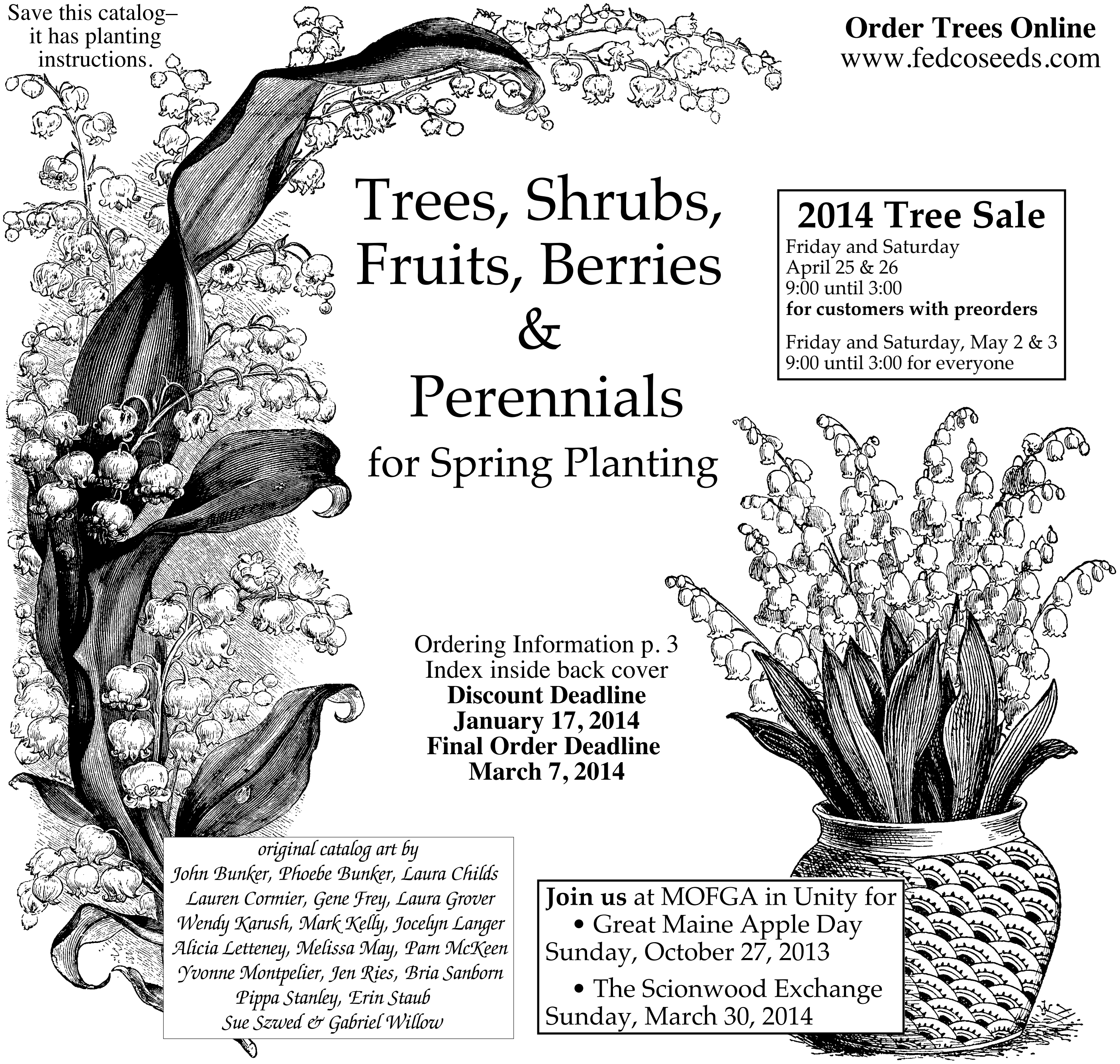

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Discount Deadline
January 17, 2014
Final Order Deadline
March 7, 2014

original catalog art by
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